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FILE 'MEDLINE' ENTERED AT 15:39:25 ON 13 MAY 2003

=> s antimicrob? or antibacter?

L1 153627 ANTIMICROB? OR ANTIBACTER?

=> s l1 and phosphor?

L2 1795 L1 AND PHOSPHOR?

=> s l1 and phosphorous

L3 54 L1 AND PHOSPHOROUS

=> s l3 and phosphor?/ti

L4 13 L3 AND PHOSPHOR?/TI

=> d ti 1-13

L4 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2003 ACS

TI Sustained-release preparation of hinokitiol metal salts containing acidic **phosphorus** compounds

L4 ANSWER 2 OF 13 CAPLUS COPYRIGHT 2003 ACS

TI Synergistic compositions for controlling plant pathogens comprising metal ions, chelating agents, and **phosphorous** acid

L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2003 ACS

- TI **Antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers containing **phosphorous** acid ester compounds
- L4 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI **Antibacterial** conjugate binder fibers with good retention of **antibacterial** properties during processing steps comprising a polyester core and a polyolefin sheath and containing **phosphorous** acid esters
- L4 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI **Antibacterial** stuffings with good washfastness of **antibacterial** properties comprising polyester fibers containing **phosphorous** acid ester compounds and beddings therefrom
- L4 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Fire-resistant **antibacterial** fibers comprising thermoplastic polymers containing **phosphorous** and containing triazine compound salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters
- L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI **Phosphorous** organic compounds and their use
- L4 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Preparation and **antimicrobial** activity of a chitosan derivative containing **phosphoryl** groups
- L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Sterilizing **phosphorous**-free washing powder and its prodn. method
- L4 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI **Antimicrobial** nylon prepared in water with zinc compound and **phosphorus** compound
- L4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Synthesis of some phosphites from cyclic **phosphorous** acid chlorides
- L4 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Synthesis of phosphites from the acid chlorides of cyclic esters of **phosphorous** acid and a study of them as fuel additives
- L4 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS
- TI Mitomycin C derivatives containing **phosphorous**

=> d ibib abs 1-13 it

L4 ANSWER 1 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2003:239789 CAPLUS  
 DOCUMENT NUMBER: 138:250152  
 TITLE: Sustained-release preparation of hinokitiol metal salts containing acidic **phosphorus** compounds  
 INVENTOR(S): Nagashima, Takeshi; Yuma, Toshifumi; Takahashi, Hitoshi; Sakota, Naokazu  
 PATENT ASSIGNEE(S): Kanae Paint Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003089606	A2	20030328	JP 2002-48009	20020225
PRIORITY APPLN. INFO.:			JP 2001-211874	A 20010712
AB	The sustained-release prepn. of hinokitiol (I) metal salts, useful as bactericides, fungicide,s food freshness-keeping agents, etc., contain acidic P compds. to control volatility of I. A mixt. of 50 mg magnesium hinokitiol and 150 mg tris(nonylphenyl)phosphite showed good <b>antibacterial</b> effect over 1 mo. Similar prepn. using tobermorite, wollastonite, or talc as carriers were also prepd.			
IT	Food additives (freshness-keeping agents; sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	<b>Antibacterial</b> agents Fungicides (industrial; sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	Pesticide formulations (sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	Phosphines Phosphites RL: BUU (Biological use, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	1319-31-9, Tobermorite 13983-17-0, Wollastonite 14807-96-6, Talc, biological studies RL: BUU (Biological use, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (carrier; sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	499-44-5D, Hinokitiol, metal salts 7439-95-4D, Magnesium, complexes with hinokitiol 7440-50-8D, Copper, complexes with hinokitiol 7440-70-2D, Calcium, complexes with hinokitiol RL: BSU (Biological study, unclassified); BUU (Biological use, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses) (sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	603-35-0, Triphenylphosphine, biological studies 10343-62-1, Metaphosphoric acid 13598-36-2, <b>Phosphorous</b> acid, biological studies RL: BSU (Biological study, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			
IT	3806-34-6, Cyclic neopentametraylbis(octadecyl phosphite) 7664-38-2, Orthophosphoric acid, biological studies 26523-78-4, Tris(nonylphenyl) phosphite 502849-97-0 RL: BUU (Biological use, unclassified); FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses) (sustained-release prepn. of hinokitiol metal salts contg. acidic P compds. to control volatility of hinokitiol)			

TITLE: Synergistic compositions for controlling plant pathogens comprising metal ions, chelating agents, and **phosphorous** acid

INVENTOR(S): Lifshitz, Ran

PATENT ASSIGNEE(S): Agricare Ltd., Israel

SOURCE: PCT Int. Appl., 31 pp.  
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002060248	A2	20020808	WO 2002-IL78	20020128
WO 2002060248	A3	20030320		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

US 2002160054	A1	20021031	US 2002-58108	20020129
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PRIORITY APPLN. INFO.: US 2001-264285P P 20010129

AB A compn. for controlling growth of pathol. organisms on a plant, said compn. comprises an effective amt. of one or more of metal ion(s); one or more of chelating agent(s); and **phosphorous** acid, and/or salt or hydrate thereof, said compn. is in an agriculturally compatible carrier or vehicle.

IT Fulvic acids

RL: MOA (Modifier or additive use); USES (Uses)  
(acidifying agent in synergistic compns. for controlling plant pathogens)

IT Carboxylic acids, biological studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(hydroxy; chelating agent in synergistic compns. for controlling plant pathogens)

IT Metals, biological studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(ions; synergistic compns. for controlling plant pathogens comprising)

IT Bacteria (Eubacteria)

(phytopathogenic; synergistic compns. comprising metal ions, chelating agents, and **phosphorous** acid for controlling)

IT Carboxylic acids, biological studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)  
(polycarboxylic, amino; chelating agent in synergistic compns. for controlling plant pathogens)

IT Albugo

Bremia

Erwinia

Peronospora

Phytopathogenic fungi

Phytophthora

Pseudomonas

Pseudoperonospora

Pythium  
Rhizoctonia  
Xanthomonas

(synergistic compns. comprising metal ions, chelating agents, and  
**phosphorous** acid for controlling)

IT Chelating agents

(synergistic compns. for controlling plant pathogens comprising)

IT **Antibacterial** agents

Fungicides

(synergistic compns. for controlling plant pathogens comprising metal  
ions, chelating agents, and **phosphorous** acid)

IT **Antimicrobial** agents

(synergistic; synergistic compns. for controlling plant pathogens  
comprising metal ions, chelating agents, and **phosphorous**  
acid)

IT 7664-93-9, Sulfuric acid, uses 8062-15-5, Lignosulfonate

RL: MOA (Modifier or additive use); USES (Uses)

(acidifying agent in synergistic compns. for controlling plant  
pathogens)

IT 56-40-6, Glycine, biological studies 60-00-4, EDTA, biological studies

67-43-6, DTPA 77-92-9, biological studies 87-73-0, D-Glucaric acid

150-39-0, HEDTA 526-95-4, D-Gluconic acid 1170-02-1, EDDHA

23351-51-1, D-gluco-Heptonic acid, 2.xi.-

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
(Biological study); USES (Uses)

(chelating agent in synergistic compns. for controlling plant  
pathogens)

IT 1314-13-2, Zinc oxide, biological studies 7439-89-6D, Iron, ion,

biological studies 7439-96-5D, Manganese, ion, biological studies

7758-99-8, Copper sulfate pentahydrate 14127-61-8, Calcium, ion,

biological studies 15158-11-9, biological studies 22537-23-1,

Aluminum, ion, biological studies 23713-49-7, Zinc, ion, biological  
studies

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
(Biological study); USES (Uses)

(synergistic compns. for controlling plant pathogens comprising)

IT 13492-26-7, **Phosphorous** acid, dipotassium salt 13598-36-2,

**Phosphorous** acid, biological studies 13708-85-5, Phosphonic

acid, disodium salt 13933-52-3, Phosphonic acid, monosodium salt

13977-65-6, Phosphonic acid, monopotassium salt

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL  
(Biological study); USES (Uses)

(synergistic compns. for controlling plant pathogens contg.)

L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:869766 CAPLUS

DOCUMENT NUMBER: 134:43356

TITLE: **Antibacterial** nonwoven fabrics with lasting  
**antibacterial** properties and good heat  
resistance comprising .epsilon.-caprolactone  
copolyester binder fibers containing  
**phosphorous** acid ester compounds

INVENTOR(S): Aranaga, Tomoyuki; Isota, Hideo; Hayashibara, Mikiya;  
Yoshino, Kenji

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

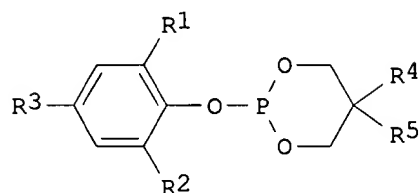
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345455	A2	20001212	JP 1999-156431	19990603
PRIORITY APPLN. INFO.:			JP 1999-156431	19990603
OTHER SOURCE(S):		MARPAT 134:43356		

GI



- AB The nonwoven fabrics comprise fibers (A) consisting of .epsilon.-caprolactone copolyesters with m.p. .gtoreq.100.degree. and contg. 0.05-10% .gtoreq.1I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, cycloalkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3R2C6H2OP(CH2O)2] as binders, or A fibers and fibers (B) other than A fibers and have A fibers bonded to A fibers or B fibers. The nonwoven fabrics are useful for linings, shoulder pads, filters, bedding mats, and vehicle interiors (no data). A compn. contg. a polyester contg. ethylene terephthalate (II) units and butylene terephthalate (III) units with II-III mol ratio 1:1, and 20 mol% (on II/III units) .epsilon.-caprolactone units with m.p. 171.degree. and 1.0% bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite as the sheath and PET as the core were together melt spun at 280.degree. and 1:1 wt. ratio to form a tow, drawn at 60.degree. to draw ratio 2.9, heat-treated at roll temp. 120.degree., crimped, and cut to give binder fibers. A 20:80 blend comprising the spun fibers and hollow PET fibers was made into a carded web, laminated, needle-punched, and heat-treated 5 min at 170.degree. to give a nonwoven fabric with thickness 20 mm and exhibiting compressive bulk retention 90% initially and 84% after 6 h at 70.degree. and showing resistance to bacteria (log B-log C; .gtoreq.2.2 good; Staphylococcus aureus) 3.8 initially and 50 washings.
- IT Polyamide fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (6, blends with polyester binder fibers; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)
- IT **Antibacterial** agents  
 Binders  
 Nonwoven fabrics  
 (**antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)
- IT Polyester fibers, uses  
 Synthetic polymeric fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (**antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg.

phosphorous acid ester compds.)

IT Filters  
 (antibacterial nonwoven fabrics with lasting  
 antibacterial properties and good heat resistance comprising  
 .epsilon.-caprolactone copolyester binder fibers contg.  
 phosphorous acid ester compds. for)

IT Household furnishings  
 (bedding, mats; antibacterial nonwoven fabrics with lasting  
 antibacterial properties and good heat resistance comprising  
 .epsilon.-caprolactone copolyester binder fibers contg.  
 phosphorous acid ester compds. for)

IT Cotton fibers  
 Wool  
 (blends with polyester binder fibers; antibacterial nonwoven  
 fabrics with lasting antibacterial properties and good heat  
 resistance comprising .epsilon.-caprolactone copolyester binder fibers  
 contg. phosphorous acid ester compds.)

IT Acrylic fibers, uses  
 Polyamide fibers, uses  
 Polypropene fibers, uses  
 Rayon, uses  
 RL: PEP (Physical; engineering or chemical process); PRP (Properties); TEM  
 (Technical or engineered material use); PROC (Process); USES (Uses)  
 (blends with polyester binder fibers; antibacterial nonwoven  
 fabrics with lasting antibacterial properties and good heat  
 resistance comprising .epsilon.-caprolactone copolyester binder fibers  
 contg. phosphorous acid ester compds.)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
 (Technical or engineered material use); PROC (Process); USES (Uses)  
 (butanediol-caprolactone-ethylene glycol-terephthalic acid;  
 antibacterial nonwoven fabrics with lasting  
 antibacterial properties and good heat resistance comprising  
 .epsilon.-caprolactone copolyester binder fibers contg.  
 phosphorous acid ester compds.)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
 (Technical or engineered material use); PROC (Process); USES (Uses)  
 (butanediol-caprolactone-terephthalic acid, block, bicomponent with PET  
 fibers; antibacterial nonwoven fabrics with lasting  
 antibacterial properties and good heat resistance comprising  
 .epsilon.-caprolactone copolyester binder fibers contg.  
 phosphorous acid ester compds.)

IT Polyesters, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
 (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with copolyester sheath; antibacterial  
 nonwoven fabrics with lasting antibacterial properties and  
 good heat resistance comprising .epsilon.-caprolactone copolyester  
 binder fibers contg. phosphorous acid ester compds.)

IT Polyamides, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
 (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, blends with polyester binder fibers; antibacterial  
 nonwoven fabrics with lasting antibacterial properties and  
 good heat resistance comprising .epsilon.-caprolactone copolyester  
 binder fibers contg. phosphorous acid ester compds.)

IT Wood  
 (fibers, blends with polyester binder fibers; antibacterial  
 nonwoven fabrics with lasting antibacterial properties and  
 good heat resistance comprising .epsilon.-caprolactone copolyester  
 binder fibers contg. phosphorous acid ester compds.)

IT Automobiles  
 (interior parts; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds. for)

IT Textiles  
 (linen, blends with polyester binder fibers; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)

IT Clothing  
 (linings; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds. for)

IT Clothing  
 (shoulder pads; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds. for)

IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
 80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
 (bactericide; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)

IT 175719-44-5, 1,4-Butanediol-.epsilon.-caprolactone-ethylene glycol-terephthalic acid copolymer  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with PET core; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)

IT 107592-10-9, 1,4-Butanediol-.epsilon.-caprolactone-terephthalic acid block copolymer  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with PET core; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)

IT 25038-59-9, Poly(ethylene terephthalate), uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with copolyester sheath; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)

IT 25038-54-4, Nylon 6, uses 25085-53-4, Isotactic polypropylene  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, blends with polyester binder fibers; **antibacterial** nonwoven fabrics with lasting **antibacterial** properties and good heat resistance comprising .epsilon.-caprolactone copolyester binder fibers contg. **phosphorous** acid ester compds.)



ACCESSION NUMBER: 2000:869763 CAPLUS

DOCUMENT NUMBER: 134:43329

TITLE: **Antibacterial** conjugate binder fibers with good retention of **antibacterial** properties during processing steps comprising a polyester core and a polyolefin sheath and containing **phosphorous** acid esters

INVENTOR(S): Aranaga, Tomoyuki; Isoda, Hideo; Hayashibara, Mikiya; Yoshino, Kenji

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

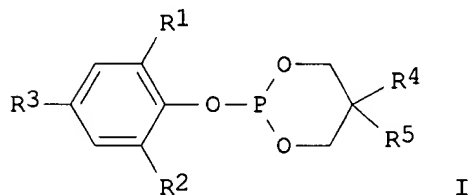
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345434	A2	20001212	JP 1999-161075	19990608
PRIORITY APPLN. INFO.:			JP 1999-161075	19990608
OTHER SOURCE(S):	MARPAT 134:43329			

GI



AB The binder fibers consist of a core comprising polyesters (A) with m.p. .gtoreq.150.degree. and a sheath comprising polyolefins (B) with m.p. smaller than the m.p. of A with .gtoreq.20.degree. difference between the m.p. of A and m.p. of B and contain 0.05-10% .gtoreq.1 I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3 R6C6H2OP(CH2O)2]. The fibers are useful for nonwoven fabrics for hygienic materials (no data). PET extrudate as the core and an extrudate contg. polyethylene (II) and bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite (III) as the sheath were together melt spun at PET-II wt. ratio 50:50, cooled, wound, drawn, crimped, and cut to give binder fibers contg. 0.05% III. A carded web of the fibers was prepd., needlepunched, and heat-treated to give a nonwoven fabric exhibiting bacteria resistance value (log B-log C; Staphylococcus aureus) 3.0.

IT **Antibacterial** agents

Binders

Nonwoven fabrics

(**antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Polyolefin fibers

Polypropene fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (bicomponent with polyester fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (bicomponent with polyolefin fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (butanediol-terephthalic acid, bicomponent with polyolefin fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (ethylene glycol-naphthalenedicarboxylic acid, bicomponent with polyolefin fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Polyolefin fibers  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (ethylene, bicomponent with polyester fibers; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Polyesters, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with polyolefin sheath; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT Medical goods  
 (hygienic materials; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphate  
 80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphate  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
 (bactericide; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT 9002-88-4, Polyethylene 25085-53-4, Isotactic polypropylene  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with polyester core; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

IT 9020-73-9, Poly(ethylene naphthalate) 24968-11-4, Poly(ethylene naphthalate) 24968-12-5, Poly(butylene terephthalate) 25038-59-9, Poly(ethylene terephthalate), uses 26062-94-2, Poly(butylene terephthalate)

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with polyolefin sheath; **antibacterial** conjugate binder fibers consisting a polyester core and a polyolefin sheath and contg. **phosphorous** acid esters with good retention of **antibacterial** properties during processing steps)

L4 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:865546 CAPLUS

DOCUMENT NUMBER: 134:43326

TITLE: **Antibacterial** stuffings with good washfastness of **antibacterial** properties comprising polyester fibers containing **phosphorous** acid ester compounds and beddings therefrom

INVENTOR(S): Aranaga, Tomoyuki; Isota, Hideo; Hayashibara, Mikiya; Yoshino, Kenji

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

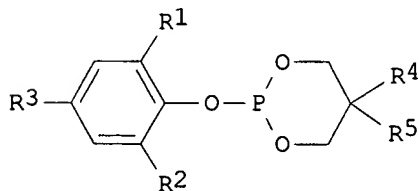
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345432	A2	20001212	JP 1999-157423	19990604
PRIORITY APPLN. INFO.:			JP 1999-157423	19990604

OTHER SOURCE(S): MARPAT 134:43326

GI



AB The stuffings are prepd. by melt spinning polymers comprising polyester compns. contg. 0.05-10% .gtoreq.1 I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3 R6C6H2OP(CH2O)2]. A compn. comprising poly(ethylene terephthalate) and 0.5% bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite was melt spun, quenched by air, drawn to draw ratio 2.8 at 70.degree., crimped, cut, and heat-treated at 140-150.degree. to give stuffing materials exhibiting bacteria resistance value (log B-log C; Staphylococcus aureus) 5.6 initially and 5.3 after 50 washings.

IT **Antibacterial agents**  
 (antibacterial stuffings with good washfastness of  
 antibacterial properties comprising polyester fibers contg.  
 phosphorous acid ester compds. and beddings therefrom)

IT Polyester fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM  
 (Technical or engineered material use); PROC (Process); USES (Uses)  
 (antibacterial stuffings with good washfastness of  
 antibacterial properties comprising polyester fibers contg.  
 phosphorous acid ester compds. and beddings therefrom)

IT Household furnishings  
 (bedding; antibacterial stuffings with good washfastness of  
 antibacterial properties comprising polyester fibers contg.  
 phosphorous acid ester compds. and beddings therefrom)

IT Polyesters, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
 formulation); PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)  
 (fiber; antibacterial stuffings with good washfastness of  
 antibacterial properties comprising polyester fibers contg.  
 phosphorous acid ester compds. and beddings therefrom)

IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
 80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol  
 diphosphite  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); MOA (Modifier or additive use); BIOL (Biological  
 study); USES (Uses)  
 (bactericide; antibacterial stuffings with good washfastness  
 of antibacterial properties comprising polyester fibers  
 contg. phosphorous acid ester compds. and beddings therefrom)

IT 25038-59-9, Poly(ethylene terephthalate), uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
 formulation); PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)  
 (fiber; antibacterial stuffings with good washfastness of  
 antibacterial properties comprising polyester fibers contg.  
 phosphorous acid ester compds. and beddings therefrom)

L4 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:865545 CAPLUS

DOCUMENT NUMBER: 134:43325

TITLE: Fire-resistant **antibacterial** fibers  
 comprising thermoplastic polymers containing  
**phosphorous** and containing triazine compound  
 salts with cyanuric acid or isocyanuric acid and  
**phosphorous** acid esters

INVENTOR(S): Aranaga, Tomoyuki; Isoda, Hideo; Hayashibara, Mikiya;  
 Yoshino, Kenji

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

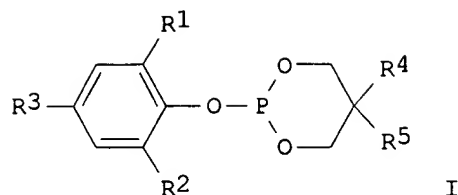
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000345427	A2	20001212	JP 1999-161074	19990608
PRIORITY APPLN. INFO.:			JP 1999-161074	19990608
OTHER SOURCE(S):	MARPAT 134:43325			
GI				



- AB The fibers are prepd. by melt spinning compns. comprising (A) thermoplastic polymers contg. P, (B) 1-10 parts triazine compd. salts with cyanuric acid or isocyanuric acid per 100 part A, (C) 0-1000 parts thermoplastic polymers per 100 parts A, and (D) 0.05-10 parts .gtoreq.1 I [R1 = C4-12 branched alkyl, cycloalkyl, arylalkyl; R2 = H, C1-12 alkyl, cycloalkyl, arylalkyl; R3 = H, C1-12 alkyl, arylalkyl, R6CO2R7; R6 = C1-6 alkylene; R7 = C1-18 alkyl, aryl; R4, R5 = C1-8 alkyl, OH-substituted C1-4 alkyl, 2,4,6-R1R3 R6C6H2OP(CH2O)2] per 100 parts sum of wt. of A and C. Di-Me terephthalate was polycondensed with ethylene glycol and 2-hydroxyethyl 3-(phenylphosphinyl)propionate (II) to give a copolyester (III) contg. 8.0 mol% II units. A compn. contg. III 100, melamine cyanurate 8, and bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite 0.05 part was pelletized, melt spun, and made into a knit to give a fabric exhibiting limiting oxygen index 31.0 and UL94 rating V-1 and showing bacteria resistance value (log B-log C; Staphylococcus aureus) 3.8 initially and 2.4 after 50 washings.
- IT Polyester fibers, uses  
Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(butanediol-di-Me terephthalate-hydroxyethyl (methylphosphinyl)propionate; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(di-Me terephthalate-ethylene glycol-hydroxyethyl (phenylphosphinyl)propionate; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fabrics; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)
- IT Polymer blends  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)
- IT **Antibacterial agents**

Fire-resistant materials

Fireproofing agents

(fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT Polyester fibers, uses

Synthetic polymeric fibers, uses

RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 64918-97-4, Bis(2,6-di-tert-butylphenyl)pentaerythritol diphosphite  
80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol diphosphite

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(bactericide; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2, Poly(butylene terephthalate)

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(blends with P-contg. polyesters, fiber; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 219571-16-1P 288629-93-6P 288629-94-7P 312612-05-8P

RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)

(fiber; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 167092-99-1P 312612-04-7P

RL: IMF (Industrial manufacture); PREP (Preparation)

(fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

IT 37640-57-6, Melamine cyanurate

RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)

(fireproofing agent; fire-resistant **antibacterial** fibers comprising thermoplastic polymers contg. **phosphorous** and contg. triazine compd. salts with cyanuric acid or isocyanuric acid and **phosphorous** acid esters)

L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:68466 CAPLUS

DOCUMENT NUMBER: 132:108102

TITLE: **Phosphorous** organic compounds and their use

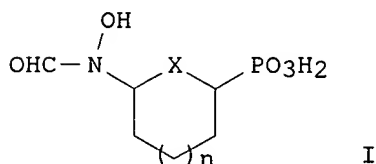
INVENTOR(S): Jomaa, Hassan

PATENT ASSIGNEE(S): Germany

SOURCE: PCT Int. Appl., 59 pp.

CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 6  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000004031	A1	20000127	WO 1999-EP4827	19990709
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19831639	C1	20000511	DE 1998-19831639	19980715
DE 19843360	A1	20000330	DE 1998-19843360	19980922
CA 2336143	AA	20000127	CA 1999-2336143	19990709
AU 9951580	A1	20000207	AU 1999-51580	19990709
AU 754165	B2	20021107		
BR 9912062	A	20010403	BR 1999-12062	19990709
EP 1095050	A1	20010502	EP 1999-936505	19990709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI				
EE 200100027	A	20020617	EE 2001-27	19990709
JP 2002520419	T2	20020709	JP 2000-560137	19990709
NO 2001000200	A	20010314	NO 2001-200	20010112
US 2003036533	A1	20030220	US 2002-241346	20020911
US 2003045746	A1	20030306	US 2002-241413	20020911
PRIORITY APPLN. INFO.:				
DE 1998-19831639 A 19980715				
DE 1998-19843360 A 19980922				
WO 1999-EP4827 W 19990709				
US 2001-743979 A3 20010302				
OTHER SOURCE(S): MARPAT 132:108102				
GI				



AB Approx. 6 bactericidal, fungicidal and herbicidal title compds. I (X = CH2, N, O; n = 0, 1) were prepd. by std. methods in several steps.

IT **Antibacterial agents**  
Fungicides  
Herbicides  
(formylhydroxyamino cyclic phosphonates)

IT 109-99-9, reactions 111-30-8, Glutaraldehyde 122-52-1, Triethyl phosphite 625-36-5, 3-Chloropropionyl chloride 762-04-9, Diethyl phosphite 930-30-3, 2-Cyclopenten-1-one 930-68-7, 2-Cyclohexen-1-one 1462-33-5, 1-Chloro-2-chloromethoxyethane 1490-25-1, Methyl 3-chlorocarbonylpropionate 13086-84-5, Di-tert-butyl phosphite 255705-24-9

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (prepn. of formylhydroxyamino cyclic phosphonates)  
 IT 4312-87-2P 6161-33-7P 7750-01-8P 21865-73-6P 67492-98-2P  
 77526-75-1P 77526-80-8P 81746-58-9P 116384-56-6P 160713-48-4P  
 160713-49-5P 255705-04-5P 255705-05-6P 255705-06-7P 255705-08-9P  
 255705-09-0P 255705-10-3P 255705-12-5P 255705-13-6P 255705-14-7P  
 255705-17-0P 255705-18-1P 255705-19-2P 255705-20-5P 255705-23-8P  
 255705-25-0P 255705-26-1P 255705-27-2P 255705-29-4P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (prepn. of formylhydroxyamino cyclic phosphonates)  
 IT 255705-07-8P 255705-11-4P 255705-15-8P 255705-16-9P 255705-21-6P  
 255705-22-7P 255705-28-3P 255705-30-7P 255705-31-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of formylhydroxyamino cyclic phosphonates)  
 REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:371785 CAPLUS  
 DOCUMENT NUMBER: 129:29302  
 TITLE: Preparation and **antimicrobial** activity of a  
 chitosan derivative containing **phosphoryl**  
 groups  
 AUTHOR(S): Baba, Y.; Nomoto, M.; Shiomori, K.; Kawano, Y.  
 CORPORATE SOURCE: Dep. Materials Science, Miyazaki Univ., Miyazaki,  
 889-2155, Japan  
 SOURCE: Kichin, Kitosan Kenkyu (1998), 4(2), 146-147  
 CODEN: KKKEFB; ISSN: 1340-9778  
 PUBLISHER: Nippon Kichin, Kitosan Gakkai  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 AB N-Phosphonomethylchitosan (PHMC) was synthesized to examine the  
**antimicrobial** activity against Escherichia coli (E.coli) and  
 Staphylococcus aureus (St.aureus). The **antimicrobial** activity  
 was evaluated by measuring the decrease in the no. of viable cells in the  
 bacteria suspension after contacting with the resin for given time. PHMC  
 exhibited a high **antibacterial** activity for both bacteria. The  
**antimicrobial** mechanism was presumed to be electrostatic  
 interaction between the surface of resin and bacteria.  
 IT Escherichia coli  
 Staphylococcus aureus  
 (prepn. and **antimicrobial** activity of chitosan deriv. contg.  
 phosphoryl groups)  
 IT Polymer morphology  
 (prepn., morphol., and **antimicrobial** activity of chitosan  
 deriv. contg. phosphoryl groups)  
 IT 50-00-0, Formaldehyde, reactions 9012-76-4, Chitosan 13598-36-2,  
**Phosphorous** acid, reactions  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (in prepn. of chitosan deriv. contg. phosphoryl groups)  
 IT 9012-76-4DP, Chitosan, N-phosphonomethyl derivs.  
 RL: BSU (Biological study, unclassified); SPN (Synthetic preparation);  
 BIOL (Biological study); PREP (Preparation)  
 (prepn. and **antimicrobial** activity of chitosan deriv. contg.  
 phosphoryl groups)

L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:168394 CAPLUS  
 DOCUMENT NUMBER: 126:159037  
 TITLE: Sterilizing **phosphorous**-free washing powder  
 and its prodn. method



INVENTOR(S): Tang, Jimeng; Zheng, Jinding  
 PATENT ASSIGNEE(S): Tang, Jimeng, Peop. Rep. China  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1110987	A	19951101	CN 1994-104517	19940427
CN 1045990	B	19991027		

PRIORITY APPLN. INFO.: CN 1994-104517 19940427

AB Detergents contain nonionic surfactants such as polyethylene glycol nonylphenyl ether and optionally ethoxylated alcs. 8-15, Na polyacrylate 0.8-1.2, Na carbonate 10-30, chlorhexidine 0.2-2, Na bicarbonate 5-15, H<sub>2</sub>O 4-6, Na metasilicate pentahydrate 5-20, Na sulfate 20-50%, and perfume.

IT Polyoxyalkylenes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (alkyl ethers, surfactants; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT **Antibacterial** agents  
 (chlorhexidine; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT Surfactants  
 (nonionic; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT Detergents  
 (sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT 55-56-1, Chlorhexidine  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (bactericides; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT 139-33-3, EDTA disodium salt 9003-04-7, Sodium polyacrylate 9004-32-4  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT 144-55-8, Sodium bicarbonate, uses 497-19-8, Sodium carbonate, uses 6834-92-0, Sodium metasilicate 7757-82-6, Sodium sulfate, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

IT 9016-45-9, Tx 10 25322-68-3D, alkyl ethers  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (surfactants; sterilizing **phosphorous**-free detergents contg. nonionic surfactants and bactericides and inorg. salts)

L4 ANSWER 10 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1988:57497 CAPLUS

DOCUMENT NUMBER: 108:57497

TITLE: **Antimicrobial** nylon prepared in water with zinc compound and **phosphorus** compound

INVENTOR(S): Osborn, Scott E.; Farrugia, Vincent J.; Plischke, LeMoyné W.; Wu, Chester C.

PATENT ASSIGNEE(S): Monsanto Co., USA

SOURCE: U.S., 3 pp.  
 CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4701518	A	19871020	US 1986-860942	19860508
PRIORITY APPLN. INFO.:			US 1986-860942	19860508

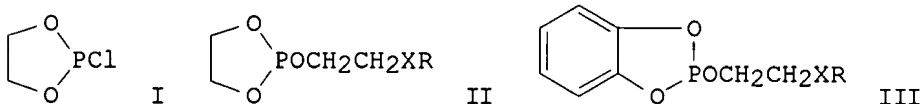
AB **Antimicrobial** activity is imparted to nylon during its prepn. by adding to the monomers a Zn compd. and a P compd. in amts. sufficient to form reaction products contg. .gtoreq.300 ppm Zn (based on the theor. wt. of nylon prepd.). Benzenephosphinic acid (390 ppm P) and Zn(NH<sub>4</sub>CO<sub>3</sub>)<sub>2</sub> (500 ppm Zn) were added to an aq. hexamethylenediammonium adipate salt soln. used to prep. nylon 66 yarns. A carpet prepd. from this nylon 66 showed 88 .+- . 5% redn. of bacteria colonies after dyeing.

IT Carpets  
 (manuf. of, **antimicrobial** nylon fibers for)

IT Polyamide fibers, preparation  
 RL: PREP (Preparation)  
 (prepn. of **antimicrobial**, contg. zinc and phosphorus compds.)

IT 557-34-6D, Zinc acetate, reaction products with phosphorus compds.  
 1314-13-2D, Zinc oxide, reaction products with phosphorus compds.  
 1779-48-2D, Benzene phosphinic acid, reaction products with zinc compds.  
 13598-36-2D, reaction products with zinc compds. 24012-08-6D, Zinc ammonium carbonate, reaction products with phosphorus compds.  
 112526-46-2D, reaction products with phosphorus compds.  
 RL: USES (Uses)  
 (in prepn. of **antimicrobial** nylon)

L4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1976:523487 CAPLUS  
 DOCUMENT NUMBER: 85:123487  
 TITLE: Synthesis of some phosphites from cyclic **phosphorous** acid chlorides  
 AUTHOR(S): Aliev, Z. E.; Guseinov, K. Z.; Aliev, S. A.  
 CORPORATE SOURCE: Inst. Khim. Prisdok, Baku, USSR  
 SOURCE: Azerbaidzhanskii Khimicheskii Zhurnal (1976), (1), 56-8  
 CODEN: AZKZAU; ISSN: 0005-2531  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Russian  
 GI



AB Reaction of the acid chloride I with HOCH<sub>2</sub>CH<sub>2</sub>XR (XR = OEt, OPh, SC<sub>5</sub>H<sub>11</sub>, SC<sub>6</sub>H<sub>13</sub>, SPh) gave 67-83% corresponding II. Benzo derivs. III (RX = EtO, C<sub>5</sub>H<sub>11</sub>S) were prepd. in 75, and 83% yields, resp., similarly. II and III have **antimicrobial** activity (no data).

IT Bactericides, Disinfectants and Antiseptics  
 (cyclic phosphites)

IT 58402-88-3P 58402-89-4P 58402-91-8P 60469-78-5P 60469-79-6P  
 60469-80-9P 60469-81-0P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of)

IT 822-39-9 1641-40-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with ethanol derivs.)  
IT 110-80-5 122-99-6 699-12-7 22812-91-5 24475-56-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction of, with ethylene chlorophosphite)

L4 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1976:92466 CAPLUS  
DOCUMENT NUMBER: 84:92466  
TITLE: Synthesis of phosphites from the acid chlorides of  
cyclic esters of **phosphorous** acid and a  
study of them as fuel additives  
AUTHOR(S): Aliev, Z. E.; Guseinov, K. Z.; Aliev, S. A.; Polovoi,  
Yu. N.; Litvinenko, S. N.  
CORPORATE SOURCE: USSR  
SOURCE: Azarbaycan Neft Tasarrufati (1975), (8), 51-3  
CODEN: AZNKAY; ISSN: 0365-8554  
DOCUMENT TYPE: Journal  
LANGUAGE: Russian  
AB Ethylene chlorophosphite (I) [822-39-9] and pyrocatechol chlorophosphite  
[1641-40-3] reacted with alkoxy (or aryloxy)ethanols and [alkyl (or  
aryl)thio]ethanols in the presence of Et3N in C6H6. I reacted with Ba  
naphthenate and alkylphenoxyethanol in C6H6 soln. to obtain antiscald and  
**antimicrobial** additives for fuels. The most efficient antiscald  
additives for gas-turbine fuel were acyl ethylene phosphites. Ethoxyethyl  
ethylene phosphite and (phenylthio)ethylene ethylene phosphite (0.1-0.3%)  
completely inhibited the growth of microorganisms in the fuel.  
IT Bactericides, Disinfectants and Antiseptics  
(cyclic ethylene phosphites, for jet fuels)  
IT Fuels, rocket  
(jet, phosphite additives for)  
IT Fatty acids, esters  
RL: USES (Uses)  
(phosphites, deposit inhibitors and microbicides, for jet fuels)  
IT 1,3,2-Dioxaphospholane, 2-(2-phenoxyethoxy)-, alkyl derivs.  
1,3,2-Dioxaphospholane, 2-hydroxy-, O-acyl derivs.  
RL: USES (Uses)  
(deposit inhibitors and microbicides, for jet fuels)  
IT 58402-88-3 58402-89-4  
RL: USES (Uses)  
(deposit inhibitors and microbicides, for jet fuels)  
IT 822-39-9 1641-40-3  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(esterification by, of ethanol derivs.)

L4 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1969:512905 CAPLUS  
DOCUMENT NUMBER: 71:112905  
TITLE: Mitomycin C derivatives containing **phosphorous**  
PATENT ASSIGNEE(S): Kyowa Fermentation Industry Co., Ltd.  
SOURCE: Fr. M., 6 pp.  
CODEN: FMXXAJ  
DOCUMENT TYPE: Patent  
LANGUAGE: French  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	FR 5223		19670814	FR	19660211
AB	The title compds. with antitumor and <b>antibacterial</b> activities were prepd. by treating ethanolamine with POCl3 in the presence of Et3N in				

dioxane or tetrahydrofuran at .apprx.0.degree., followed by dropwise addn. of a soln. mitomycin (I) in dioxane or tetrahydrofuran to the reaction mixt. Thus, to a soln. of 1 part POCl<sub>3</sub> in 20 parts dioxane, a soln. of 0.1 part ethanolamine and 6 parts triethanolamine in 20 parts dioxane was added during 10 min., a soln. of 1 part I in 0.2 part dioxane added at 20-30.degree. during 1 hr., the reaction mixt. passed through silica gel columns, washed with Me<sub>2</sub>CO, and eluted with 1:1 MeOH-EtOAc, the solid obtained dissolved in 50-100 parts HCONMe<sub>2</sub>, Et<sub>3</sub>N.HCl sepd. by filtration, the filtrate treated with Et<sub>2</sub>O, the resulting ppt. dissolved in MeOH, passed through a silica gel column, developed by EtOAc contg. 5% MeOH, and eluted by EtOAc contg. increasing MeOH till 30%, and the solid obtained chromatographed on silica gel column to give 2 very hygroscopic noncryst. reddish brown compds. (II) and (III). II and III had LD<sub>50</sub> >100 mg./kg. (mouse), and were effective for curing otorhinopharyngolaryngologic, gastric, liver, and pancreatic cancers.

IT Neoplasm inhibitors

(mitomycin C phosphorus-contg. derivs.)

IT Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione, 6-amino-1,1a,2,8,8a,8b-hexahydro-8-(hydroxymethyl)-8a-methoxy-5-methyl-, carbamate (ester), phosphorus-contg. derivs.

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

=> file stnguid

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	50.73	51.15
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-8.46	-8.46

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

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LAST RELOADED: May 9, 2003 (20030509/UP).

=> file reg

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.54	51.69
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	0.00	-8.46

FILE 'REGISTRY' ENTERED AT 15:49:01 ON 13 MAY 2003  
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Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 12 MAY 2003 HIGHEST RN 514787-04-3  
DICTIONARY FILE UPDATES: 12 MAY 2003 HIGHEST RN 514787-04-3

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:  
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=>

Uploading krishnan1.str

L5 STRUCTURE UPLOADED

=>

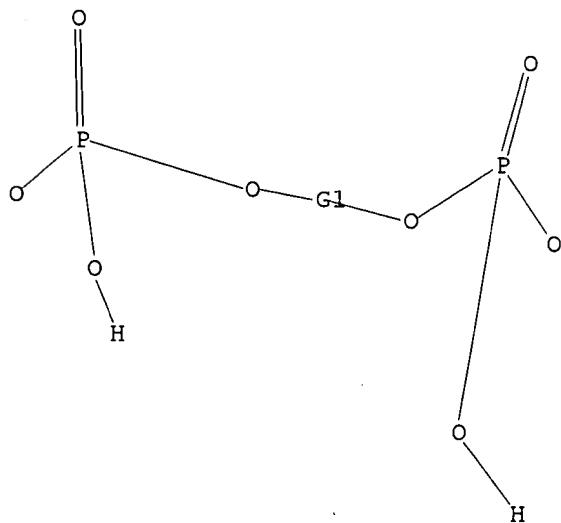
Uploading krishnan1.str

L6 STRUCTURE UPLOADED

=> d

L6 HAS NO ANSWERS

L6 STR



G1 Cb,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s 16

SAMPLE SEARCH INITIATED 15:49:55 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 3161 TO ITERATE

31.6% PROCESSED 1000 ITERATIONS  
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)  
SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 59849 TO 66591

PROJECTED ANSWERS: 2518 TO 4056

L7 50 SEA SSS SAM L6

=> s l6 full

FULL SEARCH INITIATED 15:50:05 FILE 'REGISTRY'

FULL SCREEN SEARCH COMPLETED - 64679 TO ITERATE

100.0% PROCESSED 64679 ITERATIONS

3173 ANSWERS

SEARCH TIME: 00.00.06

L8 3173 SEA SSS FUL L6

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

148.55

200.24

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

0.00

-8.46

FILE 'CAPLUS' ENTERED AT 15:50:14 ON 13 MAY 2003

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FILE COVERS 1907 - 13 May 2003 VOL 138 ISS 20

FILE LAST UPDATED: 12 May 2003 (20030512/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l8 and ( antimicrob? or antibacter?)

20295 L8

47693 ANTIMICROB?

65443 ANTIBACTER?

L9 67 L8 AND ( ANTIMICROB? OR ANTIBACTER?)

=> d ti 1-67

L9 ANSWER 1 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI **Antimicrobial** deodorant for domestic environment

L9 ANSWER 2 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI **Antimicrobial** agents for laver farming

L9 ANSWER 3 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Sterilization of foods, microbicides for foods containing chelating agents, surfactants, organic acids, and their salts, and sterilized frozen

foods

- L9 ANSWER 4 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Dentifrice compositions containing **antimicrobial** enzymes
- L9 ANSWER 5 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Conjugates of polysaccharide polymers of natural origin
- L9 ANSWER 6 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Increased Staphylococcus-killing activity of an **antimicrobial** peptide, lactoferricin B, with minocycline and monoacylglycerol
- L9 ANSWER 7 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Products for topical applications comprising oil bodies
- L9 ANSWER 8 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic composition containing 7-hydroxy dhea and/or 7-keto dhea and at least an **antimicrobial** agent
- L9 ANSWER 9 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic composition comprising a sapogenin and an **antibacterial** agent
- L9 ANSWER 10 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Protonated **antimicrobial** compounds
- L9 ANSWER 11 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic and pharmaceutical compositions containing chelating and sequestering agents
- L9 ANSWER 12 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cosmetic emulsions containing hemoglobin and myoglobin as oxygen carriers for the natural regeneration of skin in case of oxygen deficiency
- L9 ANSWER 13 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Oral compositions providing improved cleaning of teeth based on silica
- L9 ANSWER 14 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Improved injectable dispersions of propofol
- L9 ANSWER 15 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Antitubulin assembly and cell growth inhibitor denominated "dioxostatin"
- L9 ANSWER 16 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Structure of diphosphocytidyl methylerythritol synthetase involved in mevalonate-independent isoprenoid biosynthesis and the rational design of effectors
- L9 ANSWER 17 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Synthesis of hydroxyphenstatin and the prodrugs thereof as anticancer and **antimicrobial** agents
- L9 ANSWER 18 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI **Antibacterial** phosphoinositides for oral use against Haemophilus influenzae
- L9 ANSWER 19 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Disinfectant compositions for machinery used in food processing
- L9 ANSWER 20 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Preparation and use of a drug composition containing local anesthetics, anti-inflammatory agent and/or immunostimulant

L9 ANSWER 21 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Compositions for efficient release of skin active ingredients from oleaginous carriers

L9 ANSWER 22 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Oral compositions comprising tea polyphenol

L9 ANSWER 23 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Acidic carbohydrate preservatives and application

L9 ANSWER 24 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Rufomycin derivatives useful as antibiotics

L9 ANSWER 25 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Absorbent article having a skin care composition

L9 ANSWER 26 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Article having a transferable breathable skin care composition thereon

L9 ANSWER 27 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Synergistic food preservatives containing glucose enzymic oxidation products

L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Food preservatives containing fructose enzymic oxidation products and preservation of food

L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Synergistic food preservatives containing galactose enzymic oxidation products

L9 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Cosmetic and/or dermatological composition in the form of an oil-in-water emulsion formed by lipid vesicles dispersed in an aqueous phase containing at least one active hydrophilic acid

L9 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Antineoplastic Agents 440. Asymmetric Synthesis and Evaluation of the Combretastatin A-1 SAR Probes (1S,2S)- and (1R,2R)-1,2-Dihydroxy-1-(2',3'-dihydroxy-4'-methoxyphenyl)-2-(3'',4'',5''-trimethoxyphenyl)-ethane

L9 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Compositions for sustained release of a **antimicrobial** gas

L9 ANSWER 33 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Dentifrices containing noncationic **antibacterials** for removal of tongue coating

L9 ANSWER 34 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Tear grass-derived **antibacterial** agent and process for producing the same

L9 ANSWER 35 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI **Antimicrobial** agents containing rice bran components for fish and Crustacea

L9 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Oxazolidinone derivatives, process for their preparation and pharmaceutical compositions containing them as antibiotics



L9 ANSWER 37 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Lathering surfactants in cleansing compositions for skin and/or hair which also deposits skin care actives

L9 ANSWER 38 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products with improved moisturization

L9 ANSWER 39 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Granular deodorant and **antibacterial** composition and its production

L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Method of processing and preserving collagen based tissues

L9 ANSWER 41 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Anticaries mouthwashes containing shellac

L9 ANSWER 42 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI **Antibacterial** treatment solutions, manufacture of ceramics, and **antibacterial** ceramic products

L9 ANSWER 43 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Chitosan-containing antimildew aqueous coatings

L9 ANSWER 44 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing and conditioning article for skin or hair comprising surfactants and lipids

L9 ANSWER 45 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing and conditioning products for skin or hair with improved deposition of conditioning ingredients

L9 ANSWER 46 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Bioactive secondary metabolites from plants. Protective effects in healthy nutrition

L9 ANSWER 47 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Additive-transfer coated films suitable for cook-in packaging of foods

L9 ANSWER 48 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Anticalculus dentifrice compositions containing phytates and noncationic bactericides

L9 ANSWER 49 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Inhibiting undesirable taste in oral compositions

L9 ANSWER 50 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products

L9 ANSWER 51 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products

L9 ANSWER 52 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products

L9 ANSWER 53 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Cleansing products

L9 ANSWER 54 OF 67 CAPLUS COPYRIGHT 2003 ACS  
TI Food preservatives

L9 ANSWER 55 OF 67 CAPLUS COPYRIGHT 2003 ACS

TI Algicides and bactericides containing lactic acid and method of cultivation of laver with them

L9 ANSWER 56 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Method of making an amine containing biocidal composition

L9 ANSWER 57 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Algicides and microbicides containing methanesulfonic acid for cultured laver

L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Preparation of copper, tin, and zinc salts of saccharide derivatives for personal care products.

L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Susceptibility of rice spikelets to infection with *Pseudomonas glumae* and its population dynamics

L9 ANSWER 60 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Evidence that generations of inositol 1,4,5-trisphosphate and hydrolysis of phosphatidylinositol 4,5-bisphosphate are rapid responses following addition of fungal elicitor which induces phytoalexin synthesis in lucerne (*Medicago Sativa*) suspension culture cells

L9 ANSWER 61 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Antiplaque and anticalculus oral compositions containing phytates and **antimicrobial** compounds

L9 ANSWER 62 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Antiplaque oral compositions for suppressing mouth odors

L9 ANSWER 63 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Food preservatives containing .epsilon.-polylysine with improved **antibacterial** activity

L9 ANSWER 64 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Combined effects of various food additives on the bactericidal activity of ethanol against *Escherichia coli* and *Staphylococcus aureus*

L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Phosphorus-31 and carbon-13 nuclear magnetic resonance studies of anaerobic glucose metabolism and lactate transport in *Staphylococcus aureus* cells

L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI Experimental candidiasis in rabbits: protective action of fructose-1,6-diphosphate

L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 TI **Antimicrobial** action of sulfurous acid. V. The action of sulfurous acid on the metabolism of respiring and fermenting yeast and *Escherichia coli* cells

=> d ibib abs hitstr 9

L9 ANSWER 9 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2002:387796 CAPLUS  
 DOCUMENT NUMBER: 136:374521  
 TITLE: Cosmetic composition comprising a sapogenin and an **antibacterial** agent  
 INVENTOR(S): Picard, Elisabeth

PATENT ASSIGNEE(S): L'Oreal, Fr.  
 SOURCE: Fr. Demande, 14 pp.  
 CODEN: FRXXBL  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2813019	A1	20020222	FR 2000-10806	20000822
PRIORITY APPLN. INFO.:			FR 2000-10806	20000822

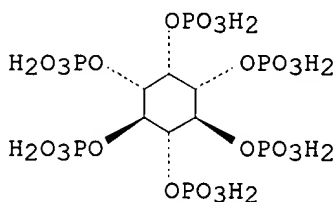
AB Cosmetic compns. comprising a sapogenin and an **antibacterial** agent are used for the prevention or the treatment of skin disorders such as acne and greasy skin. A cosmetic gel contained acrylate-C10-30 alkyl acrylate 0.5, hexyldecanol 10, isononyl isononanoate 10, diosgenin 0.3, salicylic acid 2.5, triethanolamine 4, glycerin 6, preservatives 0.25, and Sepigel-305 0.5%.

IT **83-86-3**, Phytic acid  
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)  
 (cosmetic compn. comprising sapogenin and **antibacterial** agent)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



=> d ibib abs hitstr 15

L9 ANSWER 15 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2001:832999 CAPLUS  
 DOCUMENT NUMBER: 135:366721  
 TITLE: Antitubulin assembly and cell growth inhibitor  
 denominated "dioxostatin"  
 INVENTOR(S): Pettit, George R.; Lippert, John W., III  
 PATENT ASSIGNEE(S): Arizona Board of Regents, Arizona State University,  
 USA  
 SOURCE: PCT Int. Appl., 38 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

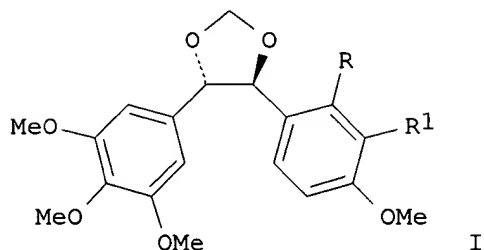
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001084929	A1	20011115	WO 2001-US14790	20010508
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1283672	A1	20030219	EP 2001-935147	20010508

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI, CY, TR

PRIORITY APPLN. INFO.:

US 2000-202770P P 20000509  
WO 2001-US14790 W 20010508

GI



AB A new inhibitor of microtubule assembly (IC<sub>50</sub> 0.59 .mu.M); with antineoplastic properties, denominated "dioxostatin", has been synthesized and its effectiveness against human cancer and murine P388 lymphocytic leukemia cell lines demonstrated. Dioxostatin has the following structure (I).

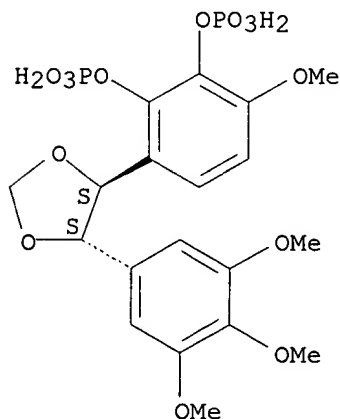
IT **354144-85-7P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(antitubulin assembly and cell growth inhibitor denominated dioxostatin in relation to antineoplastic and **antimicrobial** activity)

RN 354144-85-7 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[(4S,5S)-5-(3,4,5-trimethoxyphenyl)-1,3-dioxolan-4-yl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● 4 Na

REFERENCE COUNT:

5

THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 17

L9 ANSWER 17 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:798176 CAPLUS

DOCUMENT NUMBER: 135:331299

TITLE: Synthesis of hydroxyphenstatin and the prodrugs thereof as anticancer and **antimicrobial** agents

INVENTOR(S): Pettit, George R.; Grealish, Matthew P.

PATENT ASSIGNEE(S): Arizona Board of Regents, A Body Corporate of the State of Arizona, Acting for and On Behalf of Arizona State University, USA

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

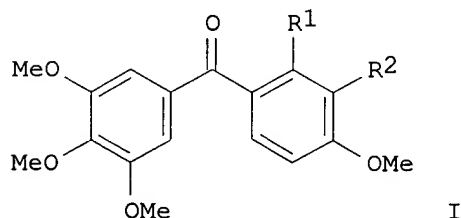
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001081288	A1	20011101	WO 2001-US13731	20010427
W: CA, JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1299337	A1	20030409	EP 2001-930892	20010427
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				

PRIORITY APPLN. INFO.: US 2000-200394P P 20000427

WO 2001-US13731 W 20010427

OTHER SOURCE(S): MARPAT 135:331299

GI



AB The benzophenone deriv. of combretastatin A-1, designated "hydroxyphenstatin" [I; R1 = R2 = OH] and X-hydroxyphenstatin diphosphate wherein X is selected from Na, Ca, Li and K in a pharmaceutically acceptable carrier, were prepd. for use as anticancer and **antimicrobial** agents. Thus, I [R1 = R2 = OPO(ONa)2 (II)] was prepd. via a multistep synthetic sequence starting from 3,4,5-trimethoxy benzaldehyde, o-vanillin, dibenzylphosphite and sodium iodide. The prepd. hydroxyphenstatin derivs. were tested for antitumor activity against a series of human cancer cells and murine P388 lymphocytic leukemia, **antibacterial** and antifungal activities (II GI50 = 0.0336 .mu.g/mL vs P388 cell line; IC50 = >40 .mu.M inhibition of tubulin polymn.; I [R1 = R2 = OPO(OCH2Ph)2] MIC = 50-100 .mu.g/dish).

IT 290347-56-7P, Sodium hydroxyphenstatin diphosphate

290347-57-8P, Lithium hydroxyphenstatin diphosphate

290347-59-0P, Potassium hydroxyphenstatin diphosphate

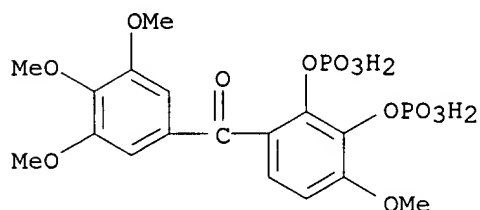
290347-60-3P, Calcium hydroxyphenstatin diphosphate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);  
BIOL (Biological study); PREP (Preparation); USES (Uses)  
(synthesis of hydroxyphenstatin and diphosphate prodrug as anticancer  
and **antimicrobial** agents)

RN 290347-56-7 CAPLUS

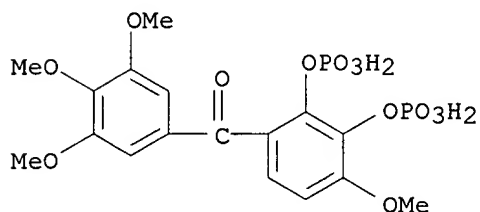
CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl] (3,4,5-trimethoxyphenyl)-  
, tetrasodium salt (9CI) (CA INDEX NAME)



●4 Na

RN 290347-57-8 CAPLUS

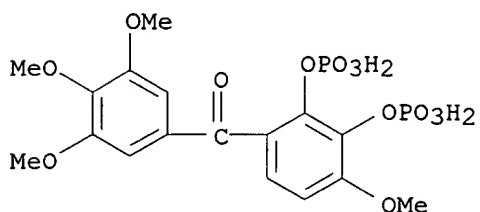
CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl] (3,4,5-trimethoxyphenyl)-  
, tetralithium salt (9CI) (CA INDEX NAME)



●4 Li

RN 290347-59-0 CAPLUS

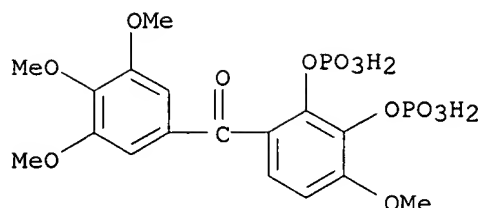
CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl] (3,4,5-trimethoxyphenyl)-  
, tetrapotassium salt (9CI) (CA INDEX NAME)



●4 K

RN 290347-60-3 CAPLUS

CN Methanone, [4-methoxy-2,3-bis(phosphonooxy)phenyl] (3,4,5-trimethoxyphenyl)-  
, calcium salt (1:2) (9CI) (CA INDEX NAME)



● 2 Ca

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d ibib abs hitstr 20

L9 ANSWER 20 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2001:472466 CAPLUS  
 DOCUMENT NUMBER: 135:97440  
 TITLE: Preparation and use of a drug composition containing local anesthetics, anti-inflammatory agent and/or immunostimulant  
 INVENTOR(S): Kasch, Helmut; Goldschmidt, Carsten  
 PATENT ASSIGNEE(S): ID Pharma G.m.b.H., Germany  
 SOURCE: PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001045678	A2	20010628	WO 2000-EP13036	20001220
WO 2001045678	A3	20020411		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: DE 1999-19961834 A 19991221  
 OTHER SOURCE(S): MARPAT 135:97440

AB The invention relates to a compn. which comprises as its constituents (a) a local anesthetic and (b) an anti-inflammatory compd. and/or an immunostimulant compd. and/or a compd. which acts as a supporting material for the local anesthetic. The components can be linked via a chem. bond forming carbamates or thiocarbamates. The compns. are use for the treatment of autoimmune diseases, inflammations, neurol. diseases, asthma, age-related diseases etc. Thus PAR 1 was prepd. by reacting PAR 2 with procaine hydrochloride in methylene chloride for 2 h at room temp. The product was chromatographed on silica gel and identified by ESI-MS. Its was used to screen various microorganisms; PAR 1 inhibited the growth of Penicillium notatum, Glomerella cingulata and Kluyveromyces marxianus.

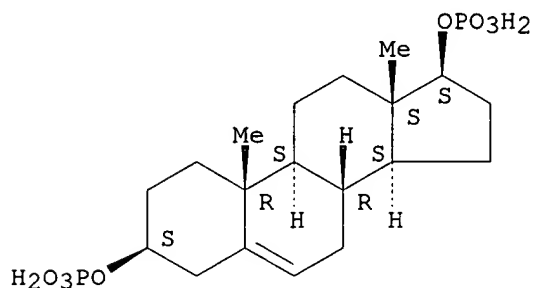
IT 346706-85-2

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(prepn. and use of a drug compn. contg. local anesthetics,  
anti-inflammatory agent and/or immunostimulant)

RN 346706-85-2 CAPLUS

CN Androst-5-ene-3,17-diol, bis(dihydrogen phosphate), (3.beta.,17.beta.)-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> d ibib abs hitstr 22

L9 ANSWER 22 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:185540 CAPLUS

DOCUMENT NUMBER: 134:227158

TITLE: Oral compositions comprising tea polyphenol

INVENTOR(S): Zhu, Long; Ji, Ning

PATENT ASSIGNEE(S): Procter & Gamble Co., USA

SOURCE: PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001017494	A1	20010315	WO 1999-US20607	19990908
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

AU 9960302 A1 20010410 AU 1999-60302 19990908

PRIORITY APPLN. INFO.: WO 1999-US20607 A 19990908

AB Disclosed are oral compns. comprising: an effective amt. of tea polyphenol; an effective amt. of a buffering agent; from about 40 % to about 99 % of one or more aq. carriers; wherein the oral compn. has a total water content of from about 5 % to about 20 %.

IT 59246-95-6, Zinc phytate

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oral compns. comprising tea polyphenol)

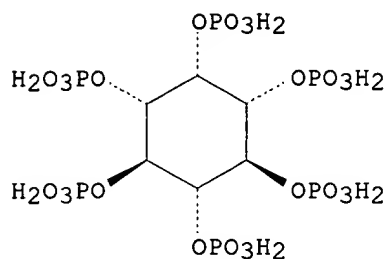
RN 59246-95-6 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), zinc salt (9CI) (CA INDEX



NAME)

Relative stereochemistry.



●x Zn

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d hitstr 23-40

L9 ANSWER 23 OF 67 CAPLUS COPYRIGHT 2003 ACS

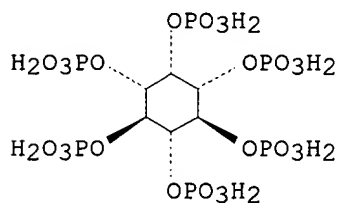
IT 83-86-3, Phytic acid

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(acidic carbohydrate preservatives and application)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 24 OF 67 CAPLUS COPYRIGHT 2003 ACS

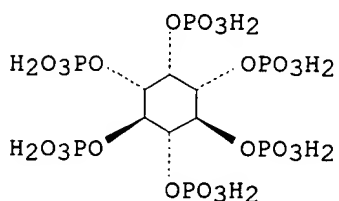
IT 83-86-3, Phytic acid

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(rufomycin derivs. useful as antibiotics)

RN 83-86-3 CAPLUS

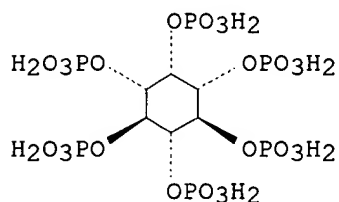
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



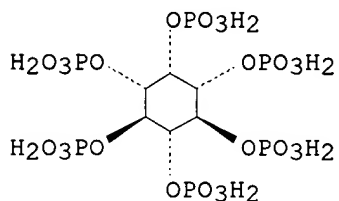
L9 ANSWER 25 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (absorbent medical articles with disposed skin care compn.)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



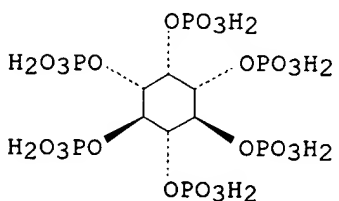
L9 ANSWER 26 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (articles having transferable breathable skin care compns. contg.)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 27 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (synergistic food preservatives contg. glucose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**

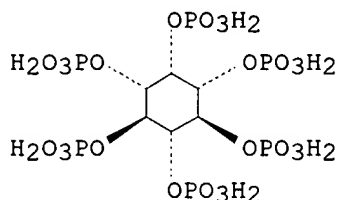
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)

(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**

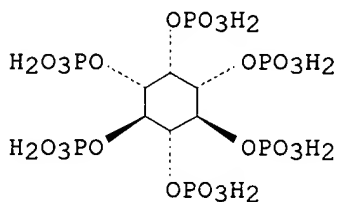
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)

(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

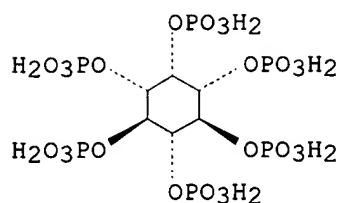
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 288847-34-7 290295-05-5

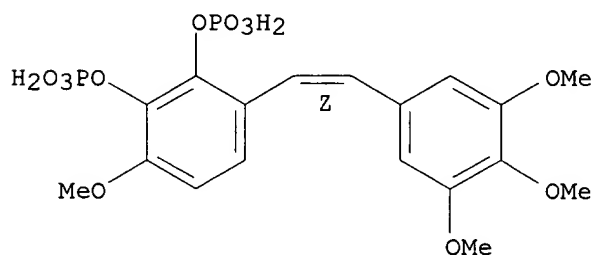
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(cytotoxicity of, in structure activity relationship study of the combretastatin A1 SAR probes)

RN 288847-34-7 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[(1Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)

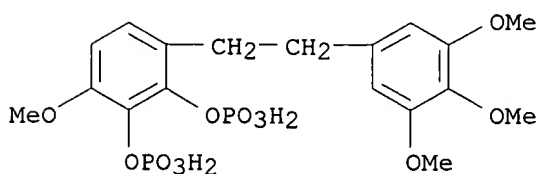
Double bond geometry as shown.



● 4 Na

RN 290295-05-5 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[2-(3,4,5-trimethoxyphenyl)ethyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

L9 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 196805-61-5P

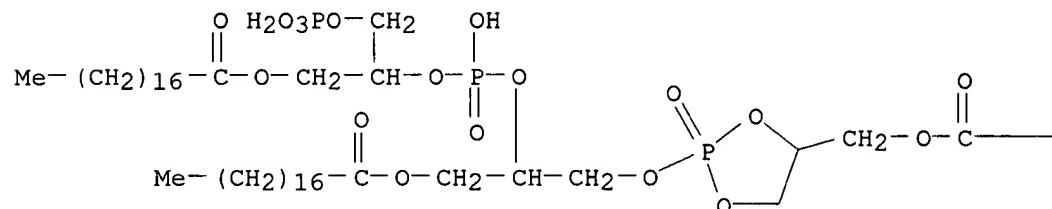
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(compns. for sustained release of an antimicrobial gas)

RN 196805-61-5 CAPLUS

CN Octadecanoic acid, 4-hydroxy-4-oxido-6-[[[2-oxido-4-[[[1-oxooctadecyl)oxy)methyl]-1,3,2-dioxaphospholan-2-yl]oxy)methyl]-9-oxo-2-[(phosphonoxy)methyl]-3,5,8-trioxa-4-phosphahexacos-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH<sub>2</sub>)<sub>16</sub>—Me

L9 ANSWER 33 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **14306-25-3**, Sodium phytate

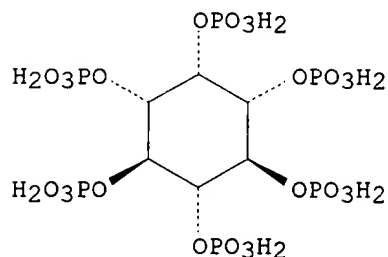
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(dentifrices contg. noncationic **antibacterials**, phytates, and fatty acid diethanolamides for removal of tongue coating)

RN 14306-25-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), sodium salt (9CI) (CA INDEX NAME)

Relative stereochemistry.



●x Na

L9 ANSWER 34 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

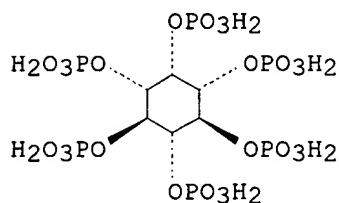
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(antibacterial compns. contg. tear grass-derived lipids and other active agents)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 35 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 83-86-3, Phytic acid

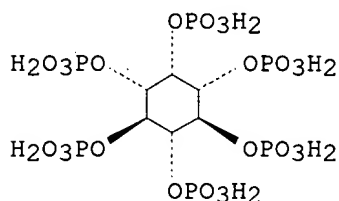
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(antimicrobial agents contg. ferulic acid, phytic acid, inositol, or oryzanol for fish and Crustacea)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 252260-05-2P

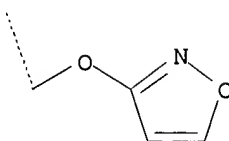
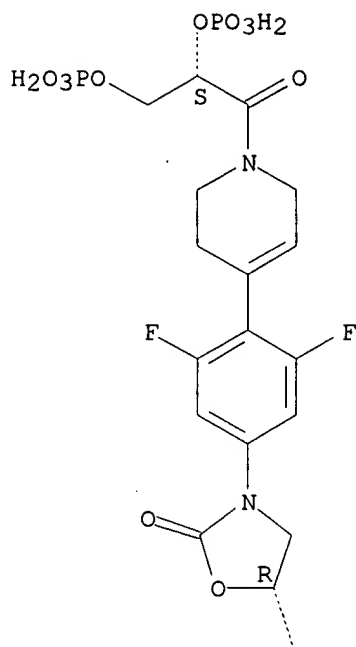
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of antibiotic oxazolidinone derivs.)

RN 252260-05-2 CAPLUS

CN Pyridine, 4-[2,6-difluoro-4-[(5R)-5-[(3-isoxazolyloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonoxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



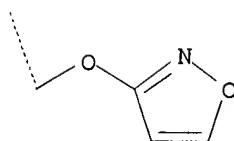
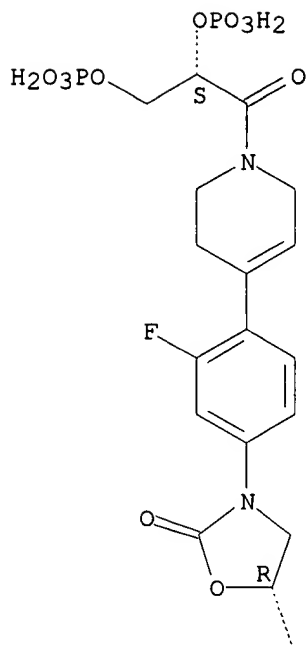
IT 252260-03-0P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of antibiotic oxazolidinone derivs.)

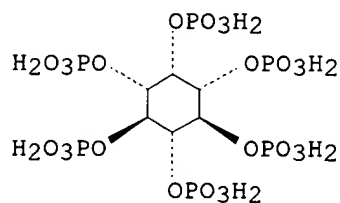
RN 252260-03-0 CAPLUS

CN Pyridine, 4-[2-fluoro-4-[(5R)-5-[(3-isoxazolyloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonoxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 37 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
 (Uses)  
 (cleansing compns. contg. surfactants and polymers for skin and/or hair  
 which also deposits skin care actives)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)  
 Relative stereochemistry.



L9 ANSWER 38 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES



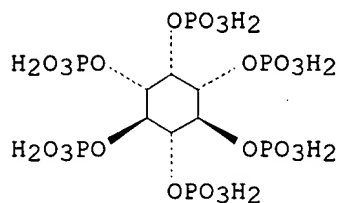
(Uses)

(cleansing products with improved moisturization)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 39 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT 56083-79-5, Phytol

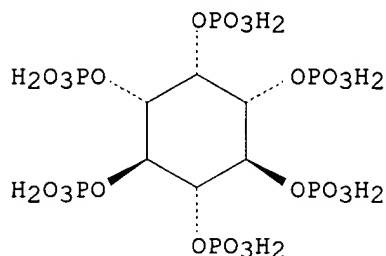
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(granular deodorant and **antibacterial** compn. and prodn.)

RN 56083-79-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), tin(2+) salt (9CI) (CA INDEX NAME)

Relative stereochemistry.



●x Sn(II)

L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS

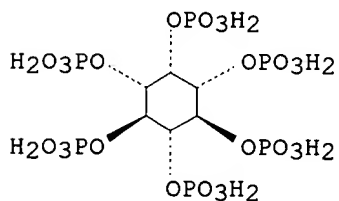
IT 83-86-3, Phytic acid

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(preservation of collagen based tissues)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



=> d hitstr 41-67

L9 ANSWER 41 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

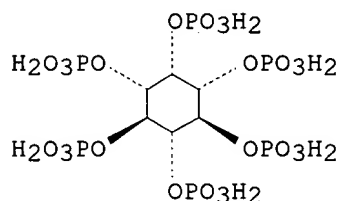
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(anticaries mouthwashes contg. shellac and bactericides and chelating agents)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 42 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3DP**, Phytic acid, silver complexes

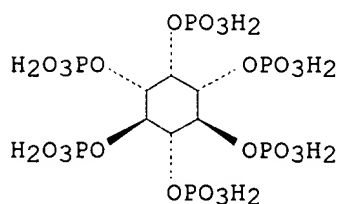
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)

(antibacterial ceramics manufd. by coating phytic acid silver complexes and firing)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 43 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

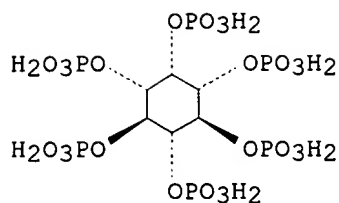
RL: MOA (Modifier or additive use); USES (Uses)

(solubilizers; aq. mildewcidal coatings contg. chitosan and its solubilizers and stabilizers)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 44 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

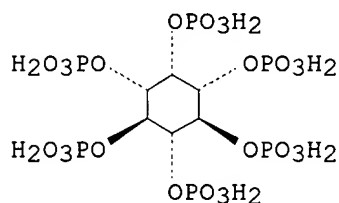
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing and conditioning article for skin or hair comprising surfactants and lipids)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 45 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

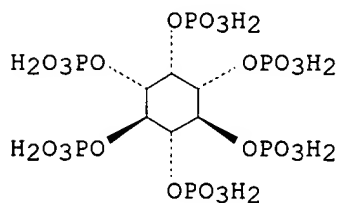
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing and conditioning products for skin or hair with improved deposition of conditioning ingredients)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 46 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

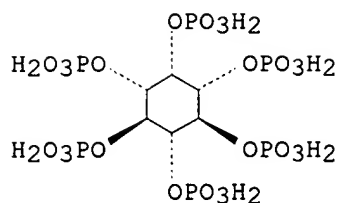
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)

(bioactive secondary metabolites from plants for healthy nutrition)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 47 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**

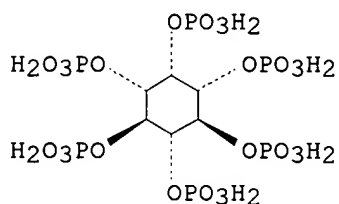
RL: FFD (Food or feed use); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)

(additive; films having additive-transfer coatings suitable for cook-in packaging of foods)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 48 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid **34367-89-0**, Hexasodium phytate

**65494-38-4 70981-44-1**

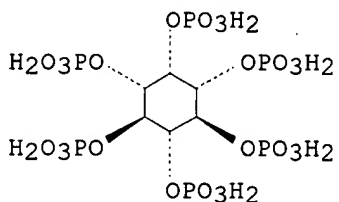
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(anticalculus dentifrices contg. phytates and noncationic bactericides)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

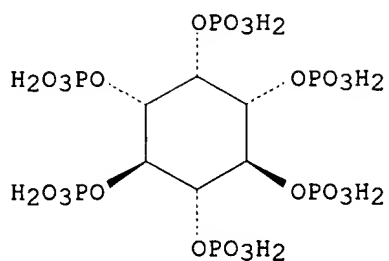
Relative stereochemistry.



RN 34367-89-0 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), hexasodium salt (9CI) (CA INDEX NAME)

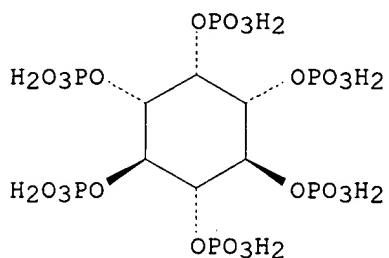
Relative stereochemistry.



●6 Na

RN 65494-38-4 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), hexaammonium salt (9CI) (CA INDEX NAME)

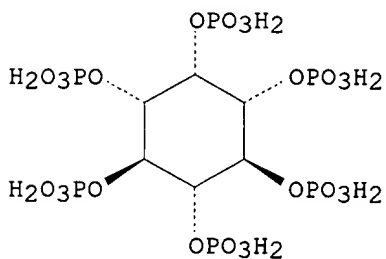
Relative stereochemistry.



●6 NH3

RN 70981-44-1 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), hexapotassium salt (9CI) (CA INDEX NAME)

Relative stereochemistry.

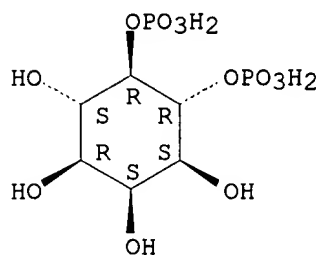


●6 K

L9 ANSWER 49 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT 93060-87-8 95120-19-7  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (inhibiting undesirable taste in oral compns.)

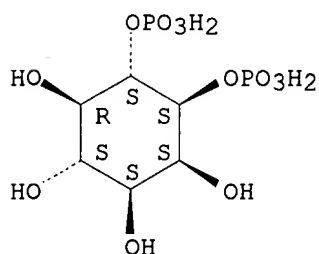
RN 93060-87-8 CAPLUS  
CN myo-Inositol, 4,5-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 95120-19-7 CAPLUS  
CN myo-Inositol, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

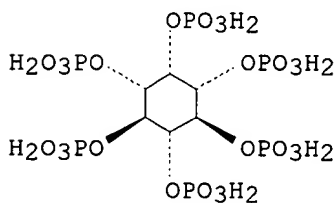
Relative stereochemistry.



L9 ANSWER 50 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT **83-86-3**, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing compns.)

RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

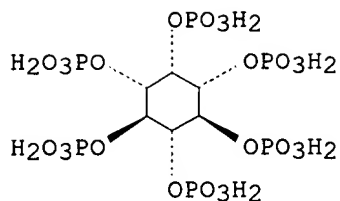
Relative stereochemistry.



L9 ANSWER 51 OF 67 CAPLUS COPYRIGHT 2003 ACS  
IT **83-86-3**, Phytic acid  
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES  
(Uses)  
(cleansing compn.)

RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 52 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

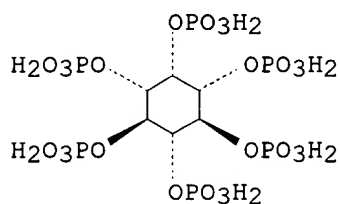
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing compns.)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 53 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

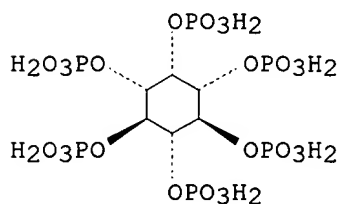
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cleansing compns.)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 54 OF 67 CAPLUS COPYRIGHT 2003 ACS

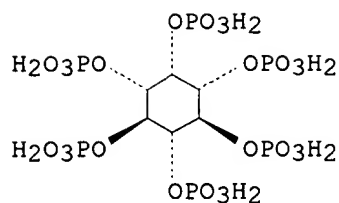
IT **83-86-3**, Phytic acid

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses) (food preservatives contg. hemicellulose and)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 55 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**, Phytic acid

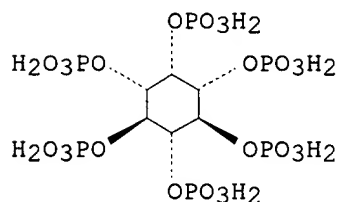
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(pH adjuster; algicides and bactericides contg. lactic acid and pH adjusters for laver cultivation)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 56 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **196805-61-5P**

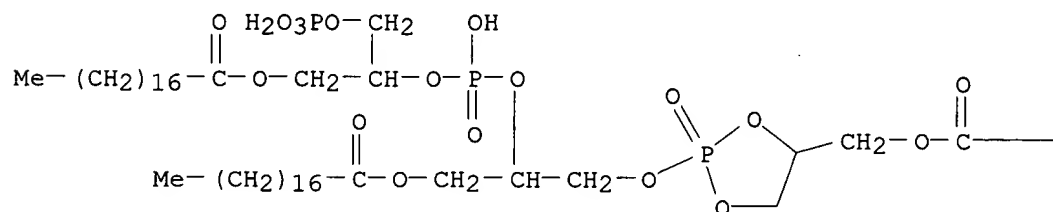
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(amine contg. biocidal compn.)

RN 196805-61-5 CAPLUS

CN Octadecanoic acid, 4-hydroxy-4-oxido-6-[[[2-oxido-4-[[[1-oxooctadecyl)oxy)methyl]-1,3,2-dioxaphospholan-2-yl]oxy)methyl]-9-oxo-2-[(phosphonooxy)methyl]-3,5,8-trioxa-4-phosphahexacos-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-A





— (CH<sub>2</sub>)<sub>16</sub>—Me

L9 ANSWER 57 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **189387-30-2**

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)

(algicides and microbicides contg. MeSO<sub>3</sub>H for cultured laver)

RN 189387-30-2 CAPLUS

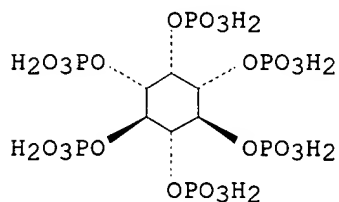
CN myo-Inositol, hexakis(dihydrogen phosphate), mixt. with methanesulfonic acid (9CI) (CA INDEX NAME)

CM 1

CRN 83-86-3

CMF C6 H18 O24 P6

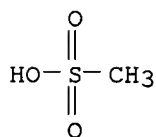
Relative stereochemistry.



CM 2

CRN 75-75-2

CMF C H4 O3 S



L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **488-69-7DP**, Fructose-1,6-diphosphate, Sn and Cu salts

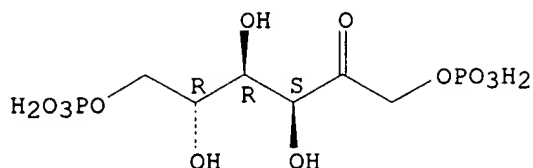
RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of copper, tin, and zinc salts of saccharide derivs. for personal care products)

RN 488-69-7 CAPLUS

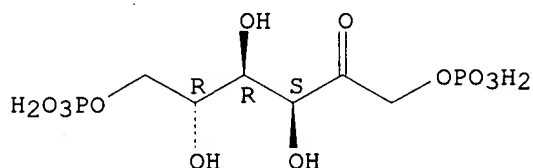
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



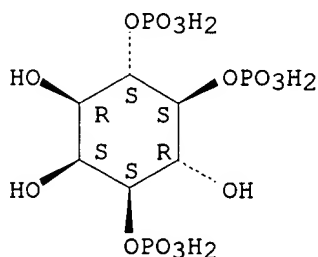
L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **488-69-7**, Fructose-1,6-bisphosphate  
 RL: BIOL (Biological study)  
 (growth of *Pseudomonas glumae* in media contg., starch biosynthesis by  
 rice grains in relation to)  
 RN 488-69-7 CAPLUS  
 CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



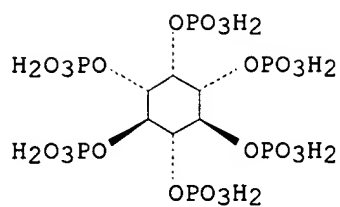
L9 ANSWER 60 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **88269-39-0**, Inositol 1,4,5-trisphosphate  
 RL: FORM (Formation, nonpreparative)  
 (formation of, in alfalfa cell cultures during phytoalexin induction)  
 RN 88269-39-0 CAPLUS  
 CN myo-Inositol, 1,4,5-tris(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



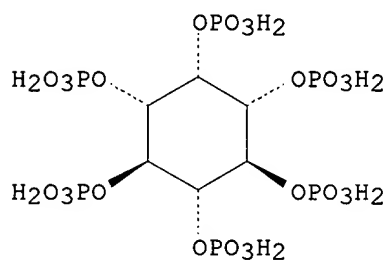
L9 ANSWER 61 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid **3615-82-5**, Phytin  
**14306-25-3**, Sodium phytate **25663-09-6**, myo-Inositol  
 pentakis (dihydrogen phosphate)  
 RL: BIOL (Biological study)  
 (antiplaque and anticalculus oral compns. contg. bactericides and)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 3615-82-5 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
 (CA INDEX NAME)

Relative stereochemistry.

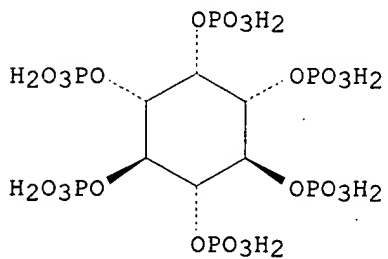


●x Ca

●x Mg

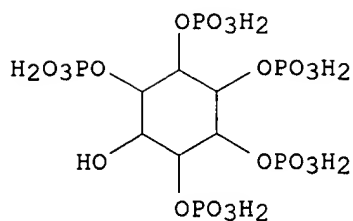
RN 14306-25-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate), sodium salt (9CI) (CA INDEX NAME)

Relative stereochemistry.



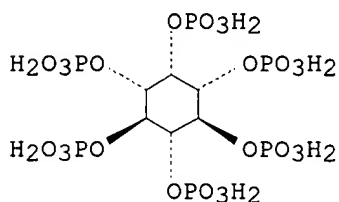
●x Na

RN 25663-09-6 CAPLUS  
 CN myo-Inositol, pentakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

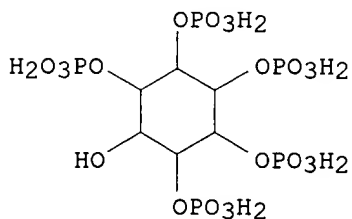


L9 ANSWER 62 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid **25663-09-6**, myo-Inositol  
 pentakis(dihydrogen phosphate)  
 RL: BIOL (Biological study)  
 (antiplaque dentifrice contg. copper salts and, for suppressing mouth  
 odors)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.

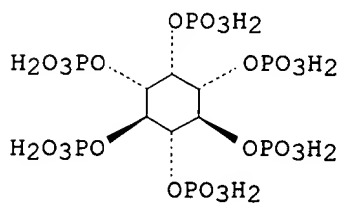


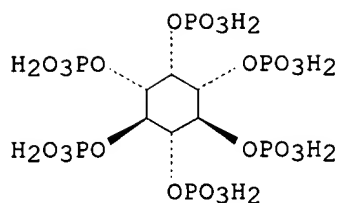
RN 25663-09-6 CAPLUS  
 CN myo-Inositol, pentakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)



L9 ANSWER 63 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)  
 (in polylysine-contg. preservative compn.)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.





L9 ANSWER 64 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **83-86-3**

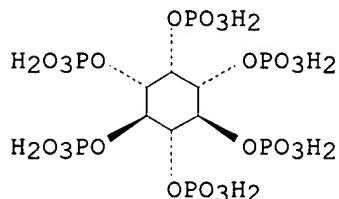
RL: BIOL (Biological study)

(ethanol susceptibility of Escherichia coli and Staphylococcus aureus response to, as food additive)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **488-69-7**

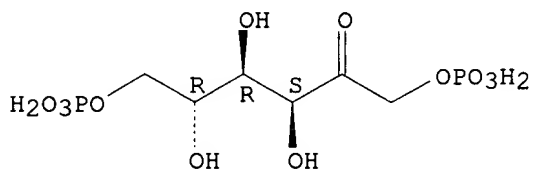
RL: PROC (Process)

(of Staphylococcus aureus, NMR of)

RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT **488-69-7**

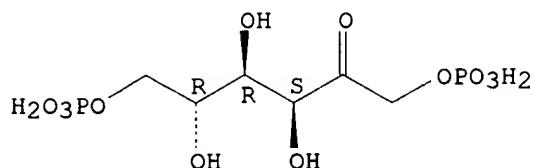
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antimicrobial activity of, in Candida albicans infection, phagocytosis stimulation and ATP in relation to)

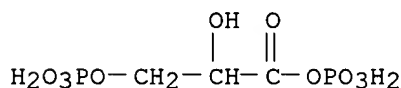
RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 IT 1981-49-3, Glyceric acid, anhydride with H3PO4, 3-phosphate  
 (formation from 3-phosphoglyceraldehyde by *Saccharomyces cerevisiae*,  
 sulfurous acid effect on)  
 RN 1981-49-3 CAPLUS  
 CN Propanoic acid, 2-hydroxy-3-(phosphonooxy)-, 1-anhydride with phosphoric  
 acid (9CI) (CA INDEX NAME)



=> d ibib abs hitstr 28-32 36 40 58 59 65-67

L9 ANSWER 28 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:631464 CAPLUS  
 DOCUMENT NUMBER: 133:207077  
 TITLE: Food preservatives containing fructose enzymic  
 oxidation products and preservation of food  
 INVENTOR(S): Yajima, Mizuo; Nozaki, Kazuhiko  
 PATENT ASSIGNEE(S): Asama Chemical Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

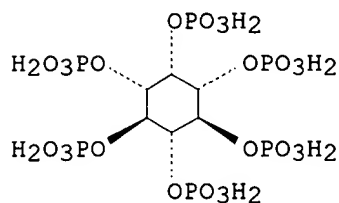
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000245416	A2	20000912	JP 1999-49466	19990226
PRIORITY APPLN. INFO.:			JP 1999-49466	19990226

AB The preservatives, which show broad-spectrum **antimicrobial** effect and do not affect taste and flavor of food, contain (a) acidic sugars and/or the related products, prepd. by treating fructose with reducing sugar oxidizing enzymes and (b) .gtoreq.1 selected from org. acids, their salts, amino acids, lower fatty acid esters, sugar esters, vitamin B1 esters, polyphosphate salts, EtOH, basic proteins, basic peptides, **antimicrobial** substances extd. from *Glycyrrhiza glabra*, red pepper exts., hop exts., chitosan, and phytic acid. Kamaboko contg. fructose oxidn. product (contg. fructuronic acid, related lactone, etc.; prepd. using glucose oxidase), protamine, and glycine, packed in a casing was stored at 15.degree. for 54 days to show no change in the appearance and odor.

IT 83-86-3  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
 USES (Uses)  
 (synergistic food preservatives contg. fructose enzymic oxidn. products

and .gtoreq.1 selected from org acids, fatty acid esters,  
polyphosphates, EtOH, plant-derived microbicides)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



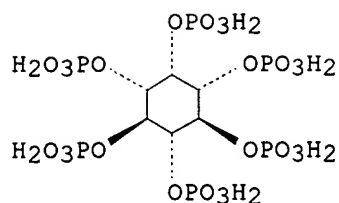
L9 ANSWER 29 OF 67 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 2000:630810 CAPLUS  
DOCUMENT NUMBER: 133:207073  
TITLE: Synergistic food preservatives containing galactose  
enzymic oxidation products  
INVENTOR(S): Yajima, Sumio; Nozaki, Kazuhiko  
PATENT ASSIGNEE(S): Asama Chemical Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000245417	A2	20000912	JP 1999-52567	19990301
PRIORITY APPLN. INFO.:			JP 1999-52567	19990301

AB The preservatives, which show broad-spectrum **antimicrobial** effect and do not affect taste and flavor of food, contain (a) acidic sugars and/or the related products, prepd. by treating galactose with reducing sugar oxidizing enzymes and (b) .gtoreq.1 selected from org. acids, their salts, amino acids, lower fatty acid esters, sugar esters, vitamin B1 esters, polyphosphate salts, EtOH, basic proteins, basic peptides, **antimicrobial** substances extd. from Glycyrrhiza glabra, red pepper exts., hop exts., chitosan, and phytic acid. Kamaboko contg. galactose oxidn. product (contg. galacturonic acid, galactaric acid, etc.; prepd. using glucose oxidase), protamine, and glycine, packed in a casing was stored at 15.degree. for 54 days to show no change in the appearance and odor.

IT **83-86-3**  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);  
USES (Uses)  
(synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



L9 ANSWER 30 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 2000:573506 CAPLUS  
 DOCUMENT NUMBER: 133:168183  
 TITLE: Cosmetic and/or dermatological composition in the form of an oil-in-water emulsion formed by lipid vesicles dispersed in an aqueous phase containing at least one active hydrophilic acid  
 INVENTOR(S): Ravaux, Danielle; Laugier, Jean-Pierre  
 PATENT ASSIGNEE(S): L'Oreal, Fr.  
 SOURCE: Eur. Pat. Appl., 15 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: French  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1027878	A1	20000816	EP 1999-403289	19991227
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2789329	A1	20000811	FR 1999-1387	19990205
FR 2789329	B1	20010302		
KR 2000057824	A	20000925	KR 2000-4263	20000128
BR 2000000613	A	20010502	BR 2000-613	20000202
JP 2000229840	A2	20000822	JP 2000-26700	20000203
US 6416768	B1	20020709	US 2000-499391	20000207
PRIORITY APPLN. INFO.:			FR 1999-1387	A 19990205

OTHER SOURCE(S): MARPAT 133:168183

AB The title compns. are disclosed. A double-compartment bottle contained polyglyceryl-2-stearate 0.2, PEG-8 stearate 0.135, Amisoft HS-20 0.09, isocetyl stearate 0.7, squalane 1.3, and water 7.075 g. The emulsion had a viscosity of about 7 cP at 2.degree. and pH = 7.3. The top of the bottle contained 0.5 g of ascorbic acid. By addn. of the ascorbic acid to the emulsion the pH decreased to 3.3 and the viscosity increased to 850 cP at 25.degree. forming a white cream.

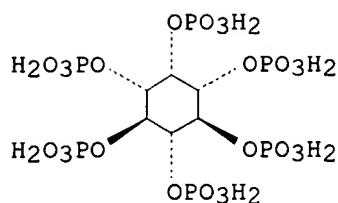
IT **83-86-3**, Phytic acid  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.





REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 31 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:443011 CAPLUS

DOCUMENT NUMBER: 133:207722

TITLE: Antineoplastic Agents 440. Asymmetric Synthesis and Evaluation of the Combretastatin A-1 SAR Probes (1S,2S)- and (1R,2R)-1,2-Dihydroxy-1-(2',3'-dihydroxy-4'-methoxyphenyl)-2-(3'',4'',5''-trimethoxyphenyl)-ethane

AUTHOR(S): Pettit, George R.; Lippert, John W., III; Herald, Delbert L.; Hamel, Ernest; Pettit, Robin K.

CORPORATE SOURCE: Cancer Research Institute and Department of Chemistry, Arizona State University, Tempe, AZ, 85287-2404, USA

SOURCE: Journal of Natural Products (2000), 63(7), 969-974

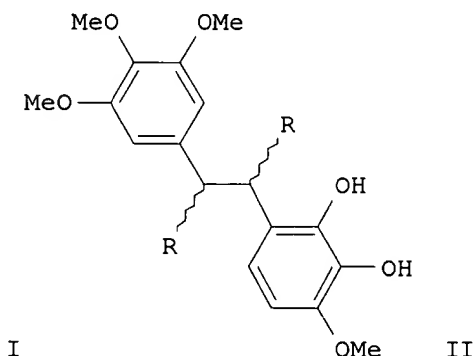
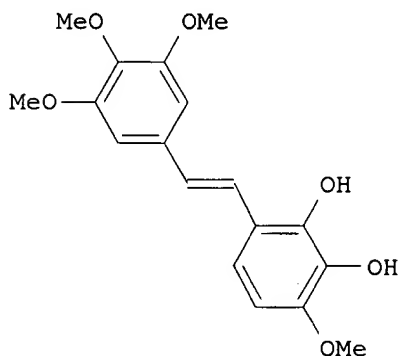
CODEN: JNPRDF; ISSN: 0163-3864

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB The synthetic (E)-isomer (I) of natural combretastatin A-1 isolated from the African bushwillow *Combretum caffrum* was the focus of chiral hydroxylation (Sharpless) reactions as part of a structure-activity relationship study. The resulting (R,R)- (II; R = .alpha.-OH) (III) and (S,S,)-diols II (R = .beta.-OH) (IV) and synthetic intermediates were evaluated against a series of cancer cell lines, microorganisms, and tubulin. Chiral diols III and IV showed increased activity against the P-388 murine lymphocytic leukemia cell line with ED50 values of 3.9 and 2.9 .mu.g/mL, resp., when compared to the precursor (E)-stilbene I. In contrast, I exhibited more potent antibiotic activity than the chiral diols, III and IV. Both diols, III and IV, displayed less cancer cell growth inhibition and less antibiotic activity than did natural combretastatin A-1 (P-388 ED50 0.25 .mu.g/mL).

IT 288847-34-7 290295-05-5

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or

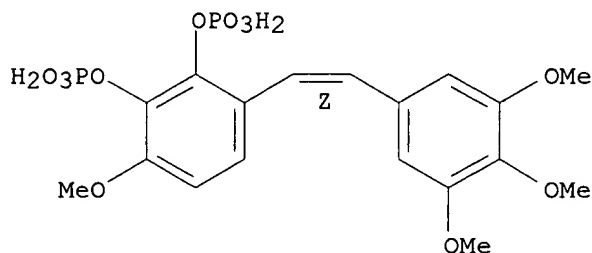
effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(cytotoxicity of, in structure activity relationship study of the combretastatin A1 SAR probes)

RN 288847-34-7 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[(1Z)-2-(3,4,5-trimethoxyphenyl)ethenyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)

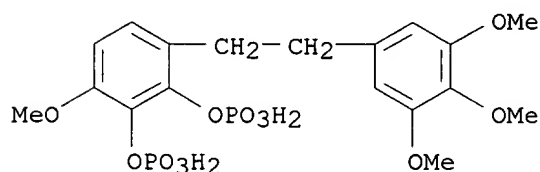
Double bond geometry as shown.



● 4 Na

RN 290295-05-5 CAPLUS

CN 1,2-Benzenediol, 3-methoxy-6-[2-(3,4,5-trimethoxyphenyl)ethyl]-, bis(dihydrogen phosphate), tetrasodium salt (9CI) (CA INDEX NAME)



● 4 Na

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 32 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:220734 CAPLUS

DOCUMENT NUMBER: 132:256077

TITLE: Compositions for sustained release of a **antimicrobial** gas

INVENTOR(S): Wellinghoff, Stephen T.; Barenberg, Sumner A.; Kampa, Joel J.; Barlow, Darren E.

PATENT ASSIGNEE(S): Bernard Technologies, Inc., USA

SOURCE: U.S., 43 pp., Cont.-in-part of U.S. 5,650,446.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 12

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 6046243	A	20000404	US 1997-858860	19970519
US 5360609	A	19941101	US 1993-17657	19930212
US 5631300	A	19970520	US 1995-462164	19950605
US 5650446	A	19970722	US 1995-465358	19950605
US 5668185	A	19970916	US 1995-461716	19950605
US 5705092	A	19980106	US 1995-461304	19950605
US 5707739	A	19980113	US 1995-465086	19950605
US 5695814	A	19971209	US 1996-682318	19960717
US 5639295	A	19970617	US 1996-726413	19961003
US 5980826	A	19991109	US 1996-724907	19961003
WO 9852412	A1	19981126	WO 1998-US8387	19980424

W: JP, SG

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

EP 982986	A1	20000308	EP 1998-918754	19980424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
JP 2002507195	T2	20020305	JP 1998-550371	19980424
AU 9863637	A1	19981119	AU 1998-63637	19980428
AU 717604	B2	20000330		

PRIORITY APPLN. INFO.:

US 1993-17657	A3	19930212
US 1994-192498	B2	19940203
US 1994-192498	YY	19940203
US 1994-192499	B2	19940203
US 1994-228671	B3	19940418
US 1995-461304	A2	19950605
US 1995-461706	B1	19950605
US 1995-461716	A2	19950605
US 1995-462039	B2	19950605
US 1995-462164	YY	19950605
US 1995-462164	A2	19950605
US 1995-465086	A3	19950605
US 1995-465087	B1	19950605
US 1995-465358	A2	19950605
US 1996-682318	A2	19960717
US 1996-724907	A2	19961003
US 1996-726413	A2	19961003
US 1993-16904	B3	19930212
US 1997-858860	A	19970519
WO 1998-US8387	W	19980424

OTHER SOURCE(S): MARPAT 132:256077

AB A composite for retarding microbiol. contamination contg. a hydrophobic material contg. an acid releasing agent, and a hydrophilic material contg. anions that are capable of reacting with hydronium ions to generate a gas. The hydrophilic and hydrophobic materials are adjacent and substantially free of water, and the hydrophilic material is capable of generating and releasing the gas after hydrolysis of the acid releasing agent. A compn. was prepd. contg. sodium chlorite, formamide, acrylamide, isopropylacrylamide and hydrophobic material consisting of a 40% soln. of maleic anhydride-styrene copolymer in ethylbenzene plasticizer. Hydronium ions formed during hydrolysis reacted with chlorite anions to release chlorine dioxide.

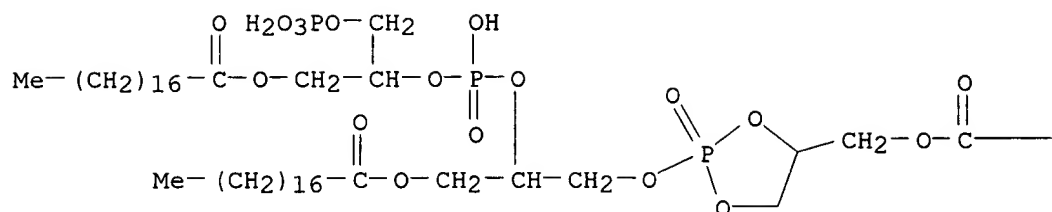
IT 196805-61-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(comps. for sustained release of an **antimicrobial** gas)

RN 196805-61-5 CAPLUS

CN Octadecanoic acid, 4-hydroxy-4-oxido-6-[[[2-oxido-4-[[[1-oxooctadecyl)oxy)methyl]-1,3,2-dioxaphospholan-2-yl]oxy)methyl]-9-oxo-2-[(phosphonooxy)methyl]-3,5,8-trioxa-4-phosphahexacos-1-yl ester (9CI) (CA INDEX NAME)



— (CH<sub>2</sub>)<sub>16</sub>—Me

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 36 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:795810 CAPLUS

DOCUMENT NUMBER: 132:35694

TITLE: Oxazolidinone derivatives, process for their preparation and pharmaceutical compositions containing them as antibiotics

INVENTOR(S): Gravestock, Michael Barry

PATENT ASSIGNEE(S): Zeneca Limited, UK

SOURCE: PCT Int. Appl., 188 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

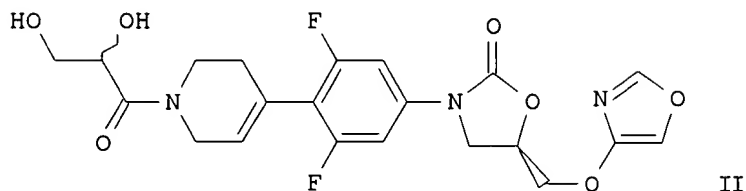
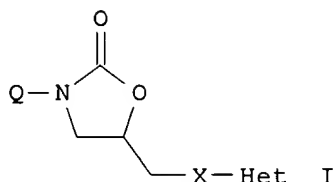
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9964417	A2	19991216	WO 1999-GB1753	19990603
WO 9964417	A3	20000203		
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2333332	AA	19991216	CA 1999-2333332	19990603
AU 9941571	A1	19991230	AU 1999-41571	19990603
AU 753988	B2	20021031		
BR 9910971	A	20010213	BR 1999-10971	19990603
EP 1082323	A2	20010314	EP 1999-925188	19990603
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
EE 200000707	A	20020415	EE 2000-707	19990603
JP 2002517498	T2	20020618	JP 2000-553426	19990603
NO 2000006152	A	20010202	NO 2000-6152	20001204

PRIORITY APPLN. INFO.:

GB 1998-12021 A 19980605  
GB 1998-20164 A 19980917  
GB 1998-26066 A 19981128  
WO 1999-GB1753 W 19990603

OTHER SOURCE(S): CASREACT 132:35694; MARPAT 132:35694  
GI



AB Title compds. I and their pharmaceutically-acceptable salts and in-vivo-hydrolyzable esters are described [wherein, for example: X = O or S; Het = (un)substituted C-linked 5-membered heteroaryl ring contg. 2 to 4 heteroatoms independently selected from N, O, and S; Q = (for example) certain substituted phenyls, 2-pyridyls, or 1,2,5,6-tetrahydropyrid-4-yls]. The compds. are useful as **antibacterial** agents, and have good activity against a broad range of Gram-pos. pathogens, including organisms known to be resistant to most commonly known antibiotics. For instance, 5(R)-[(isoxazol-3-yloxy)methyl]-3-[4-(1,2,5,6-tetrahydropyrid-4-yl)-3,5-difluorophenyl]oxazolidin-2-one (prepn. given) underwent N-acylation by (R,S)-2,3-O-isopropylideneglyceric acid using EDC and Et<sub>3</sub>N in CH<sub>2</sub>Cl<sub>2</sub> (39%), followed by deprotection with HCl in aq. THF (80%), to give title compd. II. Against coagulase-neg. staphylococci, II had an MIC (.mu.g/mL) of 0.13 for methicillin-sensitive strains, and 0.50 for methicillin-resistant strains.

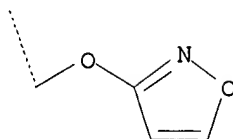
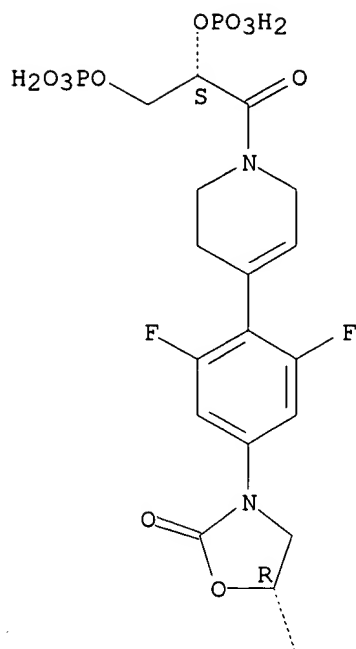
IT **252260-05-2P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(prepn. of antibiotic oxazolidinone derivs.)

RN 252260-05-2 CAPLUS

CN Pyridine, 4-[2,6-difluoro-4-[(5R)-5-[(3-isoxazolyloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonoxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

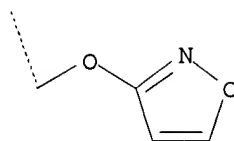
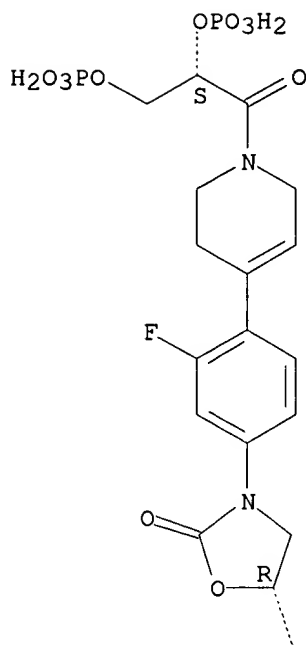
IT **252260-03-0P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(prepn. of antibiotic oxazolidinone derivs.)

RN 252260-03-0 CAPLUS

CN Pyridine, 4-[2-fluoro-4-[(5R)-5-[(3-isoxazolyloxy)methyl]-2-oxo-3-oxazolidinyl]phenyl]-1,2,3,6-tetrahydro-1-[(2S)-1-oxo-2,3-bis(phosphonooxy)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1999:549112 CAPLUS  
 DOCUMENT NUMBER: 131:155521  
 TITLE: Method of processing and preserving collagen based tissues  
 INVENTOR(S): Livesey, Stephen A.; Coleman, Christopher L.; Boerboom, Lawrence E.; Griffey, Edward S.  
 PATENT ASSIGNEE(S): Lifecell Corporation, USA  
 SOURCE: PCT Int. Appl., 35 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9941981	A1	19990826	WO 1999-US3667	19990219
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,  
 FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,  
 CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2320887	AA 19990826	CA 1999-2320887	19990219
AU 9927753	A1 19990906	AU 1999-27753	19990219
AU 752457	B2 20020919		
EP 1056335	A1 20001206	EP 1999-908285	19990219

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, FI

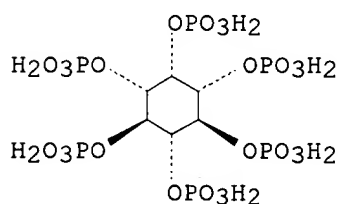
JP 2002503678	T2 20020205	JP 2000-532008	19990219
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PRIORITY APPLN. INFO.:  
 US 1998-75472P P 19980220  
 WO 1999-US3667 W 19990219

AB A process for the preserving collagen-based tissues involves procuring the collagen-based tissue; treating the tissue in a detergent soln.; treating the tissue in an enzyme soln.; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via the Maillard reaction and the subsequent formation of advanced glycosylation end products; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via reactive oxidative species of mols.; treating the tissue so as to prevent or inhibit the mol. crosslinking of processed tissues via the formation and propagation of mol. free radicals; treating the tissue in a cryopreservation soln.; and cryopreserving the tissue. The process may be utilized to preserve several differing types of collagen based tissue including heart valve, vascular grafts including veins and arteries, umbilical vessels, nerve and nervous system tissue, dura, dermis and other similar collagen based tissues. An example is given detailing procurement of pig heart valve, decellularization, and cryopreservation.

IT **83-86-3**, Phytic acid  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (preservation of collagen based tissues)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1995:928112 CAPLUS  
 DOCUMENT NUMBER: 123:340761  
 TITLE: Preparation of copper, tin, and zinc salts of  
 saccharide derivatives for personal care products.  
 INVENTOR(S): Traudt, Michael David; Waterfield, Philip Christopher  
 PATENT ASSIGNEE(S): Unilever PLC, UK  
 SOURCE: Eur. Pat. Appl., 8 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:



PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 658565	A1	19950621	EP 1993-310259	19931217

R: DE, FR, GB, IT

PRIORITY APPLN. INFO.: EP 1993-310259 19931217

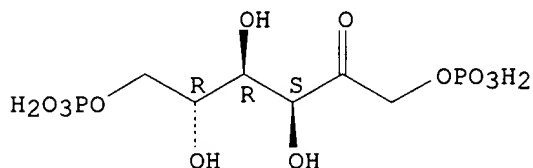
AB Copper, tin, and zinc salts of polyhydroxy compds. having at .gtoreq.4 C atoms and .gtoreq.1 acid, ester-linked salt-forming substituent, excluding zinc hexosephosphates and stannous glucose-1-phosphate, are claimed. These salts have anti-bacterial activity and are useful for inclusion in personal care compns., particularly in oral care compns., to impart anti-plaque, anti-caries, anti-gingivitis properties thereto. Thus, disodium glucose-6-phosphate and SnCl<sub>2</sub> were stirred 30 min. in H<sub>2</sub>O; MeOH was added to ppt. stannous glucose-6-phosphate. The latter at 6000 ppm gave 88% kill of plaque bacteria.

IT **488-69-7DP**, Fructose-1,6-diphosphate, Sn and Cu salts  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of copper, tin, and zinc salts of saccharide derivs. for personal care products)

RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:452262 CAPLUS

DOCUMENT NUMBER: 121:52262

TITLE: Susceptibility of rice spikelets to infection with *Pseudomonas glumae* and its population dynamics

AUTHOR(S): Hikichi, Yasufumi; Okuno, Tetsuro; Furusawa, Iwao

CORPORATE SOURCE: Takarazuka Res. Cent., Sumitomo Chem. Co., Ltd., Kishiro, 675-23, Japan

SOURCE: Journal of Pesticide Science (International Edition) (1994), 19(1), 11-17  
 CODEN: JPSEEC; ISSN: 0916-9962

DOCUMENT TYPE: Journal

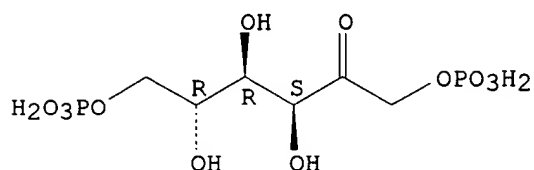
LANGUAGE: English

AB Spikelets of rice plants at flowering were most susceptible to invasion of *Pseudomonas glumae*. When *P. glumae* invaded into flowering spikelets at a d. of 1 cfu/grain or more, the population of bacteria in spikelets greatly increased up to 9 days after the flowering day, resulting in bacterial grain rot of rice. In rice spikelets the time of accumulation of intermediate sugars for the biosynthesis of grain starch were consistent with the time of increase of bacterial population. *P. glumae* was able to utilize intermediate sugars except for sucrose and triose phosphates. Oxolinic acid (Starner) had **antibacterial** activity against *P. glumae* on the epidermis of spikelets, and reduced the bacterial infectivity into rice spikelets. Oxolinic acid applied to flowering spikelets also inhibited multiplication of *P. glumae* and protected grains from bacterial grain rot of rice.

IT **488-69-7**, Fructose-1,6-bisphosphate  
 RL: BIOL (Biological study)  
 (growth of *Pseudomonas glumae* in media contg., starch biosynthesis by rice grains in relation to)

RN 488-69-7 CAPLUS  
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1983:467310 CAPLUS

DOCUMENT NUMBER: 99:67310

TITLE: Phosphorus-31 and carbon-13 nuclear magnetic resonance studies of anaerobic glucose metabolism and lactate transport in *Staphylococcus aureus* cells

AUTHOR(S): Ezra, Fouad S.; Lucas, Donald S.; Mustacich, Robert V.; Russell, Anne F.

CORPORATE SOURCE: Miami Valley Lab., Procter and Gamble Co., Cincinnati, OH, 45247, USA

SOURCE: Biochemistry (1983), 22(16), 3841-9  
CODEN: BICHAW; ISSN: 0006-2960

DOCUMENT TYPE: Journal

LANGUAGE: English

AB High-resoln. Fourier transform 31P and 13C NMR were used to probe several aspects of glucose metab. and lactate transport in the gram-pos. bacterium *Staphylococcus aureus*. The 31P NMR spectra show resonances due to intracellular (Piin) and extracellular orthophosphate (Piex), sugar phosphate, and nucleoside di- and triphosphates. A peak due to teichoic acid was also identified. Its appearance indicates a relatively high degree of mobility in the backbone of this cell wall polymer. The intracellular pH is estd. from the chem. shift of the Piin resonance and is dependent upon the pH of the external medium. A prominent feature of the 31P NMR spectra is the progressive broadening and downfield shift of the Piin resonance that occur when the cells are maintained in an anaerobic environment. Oxygenation causes a narrowing and an upfield shift of the Piin resonance and reverses the trends obsd. under anaerobic conditions. These line width and chem. shift variations are attributed mainly to a binding of the orthophosphate to paramagnetic ions accumulated by the cells during growth. The ESR spectrum of a perchloric acid ext. shows a sextet characteristic of Mn(II) hexaquo ions. Apparently, the Mn is involved in O<sub>2</sub> metab. 13C NMR spectra obtained from *S. aureus* cells incubated anaerobically with [1-13C]- or [6-13C]glucose show resonances due to fructose 1,6-diphosphate as an intermediary metabolite and mannitol, lactate, and EtOH as the major end products of glucose metab. The identity of mannitol is detd. from the 13C NMR spectrum of a perchloric acid ext. The pH of the external medium affects the glycolytic rate and the distribution of end products. When the pH of the medium is raised from 6.0 to 7.5, the rate of glucose consumption is enhanced, whereas the amt. of mannitol produced relative to lactate is drastically reduced. The latter effect is explained in terms of the regulation of phosphofructokinase activity by the intracellular pH. The intra- and extracellular lactate appear as 2 well-resolved resonances due primarily to the presence of the Mn<sup>2+</sup> inside the cells. The result is a downfield shift and broadening of the intracellular resonance which depend on the oxygenation state of the cells and resemble the trends obsd. in the 31P NMR spectra. The chem. shift inequivalence of the 2 lactate resonances allows the distribution and transport of this metabolite to be measured,

with both the internal and external components being monitored independently. During anaerobic glycolysis, a lactate concn. gradient favoring the cytoplasmic compartment is established. The final intracellular concn. is estd. to be 2-5-fold greater than that in the external medium. In the presence of O<sub>2</sub>, lactate is transported into the cells. A rapid efflux occurs as the cells revert to an anaerobic state. Treatment with a fatty acid **antimicrobial** agent, octanoate, results in a concn.-dependent redn. of the transmembrane pH gradient and a loss of lactate from the cells during glycolysis. In addn., the uptake of lactate during oxygenation is completely inhibited.

IT **488-69-7**

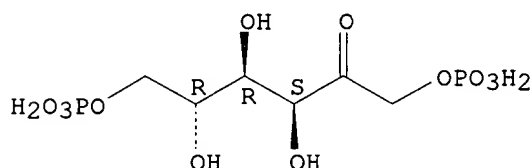
RL: PROC (Process)

(of *Staphylococcus aureus*, NMR of)

RN 488-69-7 CAPLUS

CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1983:400197 CAPLUS

DOCUMENT NUMBER: 99:197

TITLE: Experimental candidiasis in rabbits: protective action of fructose-1,6-diphosphate

AUTHOR(S): Tarsi, R.; Simonetti, N.; Orpianesi, C.

CORPORATE SOURCE: Inst. Microbiol., Univ. Camerino, Camerino, Italy

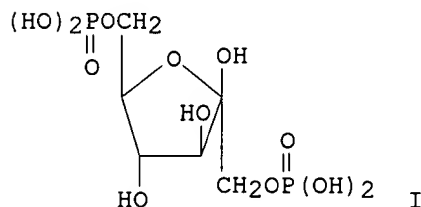
SOURCE: Mycopathologia (1983), 81(2), 111-16

CODEN: MYCPAH; ISSN: 0369-299X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI



AB Fructose-1,6-diphosphate (FDP) (I) [**488-69-7**] exerts a significant protective action towards *Candida albicans* infections in rabbits. Such protective action seems related to phagocytic activity stimulation by increased ATP [56-65-5] prodn.

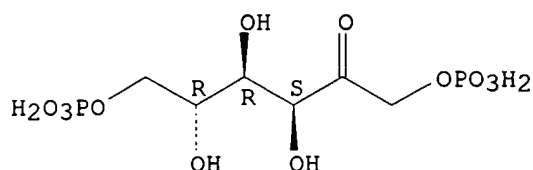
IT **488-69-7**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(**antimicrobial** activity of, in *Candida albicans* infection, phagocytosis stimulation and ATP in relation to)

RN 488-69-7 CAPLUS  
CN D-Fructose, 1,6-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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ACCESSION NUMBER: 1966:5707 CAPLUS

DOCUMENT NUMBER: 64:5707

ORIGINAL REFERENCE NO.: 64:1053e-f

TITLE: **Antimicrobial** action of sulfurous acid. V.  
The action of sulfurous acid on the metabolism of  
respiring and fermenting yeast and Escherichia coli  
cells

AUTHOR(S): Wallnoefer, P.; Rehm, H. J.

CORPORATE SOURCE: Deut. Forschungsanstalt Lebensmittelchem., Munich,  
Germany

SOURCE: Zeitschrift fuer Lebensmittel-Untersuchung und  
-Forschung (1965), 127(4), 195-206  
CODEN: ZLUFAR; ISSN: 0044-3026

DOCUMENT TYPE: Journal

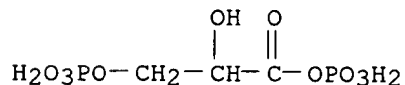
LANGUAGE: German

AB cf. CA 63, 10349a. Studies were made on the effects of H<sub>2</sub>SO<sub>3</sub> on the  
respiration and fermentation metabolism of E. coli and Saccharomyces  
cerevisiae. H<sub>2</sub>SO<sub>3</sub> inhibits fermentation of S. cerevisiae by blocking  
NAD-dependent reaction of 3-phosphoglyceraldehyde to 1,3-  
diphosphoglycerate to a greater degree than that of E. coli. Alc.  
formation by S. cerevisiae and lactic acid formation by E. coli are not  
directly inhibited by H<sub>2</sub>SO<sub>3</sub>. H<sub>2</sub>SO<sub>3</sub> inhibits respiration of E. coli  
principally by blocking the NAD-dependent reaction of malate to  
oxalacetate; through the blocking of the NADP-dependent reaction of  
isocitrate to oxalacetate; and the NAD-dependent reaction of  
.alpha.-ketoglutarate to S-succinyl-CoA. In vitro, H<sub>2</sub>SO<sub>3</sub> did not inhibit  
the alc. dehydrogenase of yeast.

IT **1981-49-3**, Glyceric acid, anhydride with H<sub>3</sub>PO<sub>4</sub>, 3-phosphate  
(formation from 3-phosphoglyceraldehyde by Saccharomyces cerevisiae,  
sulfurous acid effect on)

RN 1981-49-3 CAPLUS

CN Propanoic acid, 2-hydroxy-3-(phosphonooxy)-, 1-anhydride with phosphoric  
acid (9CI) (CA INDEX NAME)



=> d it 28-32 36 40 58 59 65-67

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IT Licorice (Glycyrrhiza glabra)  
(antimicrobial substances from; synergistic food

preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Peptides, biological studies  
 Proteins, specific or class  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (basic; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Fatty acids, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (esters, lower; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Hop (*Humulus lupulus*)  
 (exts.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Capsicum annum annum  
 (longum group, exts.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Salts, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (org., org.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Acids, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (org.; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Polyphosphoric acids  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (sodium salts; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT **Antimicrobial agents**  
 Food preservatives  
 (synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Amino acids, biological studies  
 Polyphosphates  
 Protamines  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9035-73-8, Oxidase

RL: CAT (Catalyst use); USES (Uses)  
(reducing sugar; synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 57-48-7DP, D-Fructose, enzymic oxidn. products  
RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 57-50-1D, fatty acid esters 59-43-8D, esters 64-17-5, Ethanol, biological studies 72-17-3 **83-86-3** 110-44-1 127-09-3 9012-76-4, Chitosan 24634-61-5 25339-99-5 26402-26-6 39479-63-5  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9001-37-0  
RL: CAT (Catalyst use); USES (Uses)  
(synergistic food preservatives contg. fructose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

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IT Licorice (*Glycyrrhiza glabra*)  
(**antimicrobial** substances from; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Peptides, biological studies  
Proteins, specific or class  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(basic; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Fatty acids, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(esters, lower; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Hop (*Humulus lupulus*)  
(exts.; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Capsicum annum annum  
(longum group, exts.; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Acids, biological studies  
Salts, biological studies  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study);

USES (Uses)  
 (org.; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Polyphosphoric acids  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (sodium salts; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT **Antimicrobial** agents  
 Food preservatives  
 (synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT Amino acids, biological studies  
 Polyphosphates  
 Protamines  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9035-73-8, Oxidase  
 RL: CAT (Catalyst use); USES (Uses)  
 (reducing sugar; synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 59-23-4DP, D-Galactose, enzymic oxidn. products  
 RL: BAC (Biological activity or effector, except adverse); BMF (Bioindustrial manufacture); BPN (Biosynthetic preparation); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 56-40-6, Glycine, biological studies 56-41-7, L-Alanine, biological studies 57-50-1D, fatty acid esters 59-43-8D, esters 64-17-5, Ethanol, biological studies 72-17-3 **83-86-3** 110-44-1 127-09-3 9012-76-4, Chitosan 24634-61-5 25339-99-5 26402-26-6 39479-63-5  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

IT 9001-37-0  
 RL: CAT (Catalyst use); USES (Uses)  
 (synergistic food preservatives contg. galactose enzymic oxidn. products and .gtoreq.1 selected from org acids, fatty acid esters, polyphosphates, EtOH, plant-derived microbicides)

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IT Sulfonates  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (alkanesulfonates; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Cosmetics  
       (antiaging; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Essential oils  
       RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
       (bergamot; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Hair preparations  
       (bleaches; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Anti-inflammatory agents  
       **Antibacterial** agents  
       Antioxidants  
       Antiperspirants  
       Centella asiatica  
       Dyes  
       Fungicides  
       Immunomodulators  
       Perfumes  
       Surfactants  
       (cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Ceramides  
       Corn oil  
       Essential oils  
       Phospholipids, biological studies  
       Sphingomyelins  
       RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
       (cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Cosmetics  
       (creams; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Skin, disease  
       (depigmentation; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Hair preparations  
       (dyes; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Cosmetics  
       (emulsions; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Fatty acids, biological studies  
       RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
       (essential, glycerides; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT   Melissa  
       Microalgae  
       Rosemary



(ext.; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Carboxylic acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (hydroxy; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Acne  
 Dandruff  
 Seborrhea  
 (inhibitors; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Radicals, biological studies  
 RL: BSU (Biological study, unclassified); BIOL (Biological study)  
 (inhibitors; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (inorg.; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
 (moisturizers; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (org.; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Carboxylic acids, biological studies  
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)  
 (oxo; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Hair preparations  
 (permanent wave; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT Cosmetics  
 (wrinkle-preventing; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 56-87-1, Lysine, biological studies 57-10-3, Palmitic acid, biological studies 57-11-4, Stearic acid, biological studies 58-95-7, D-.alpha.-Tocopherol acetate 59-02-9, D-.alpha.-Tocopherol 68-26-8D, Retinol, esters 69-72-7, -Salicylic acid, biological studies 74-79-3, Arginine, biological studies 77-92-9, Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 81-13-0, D Panthenol 83-86-3, Phytic acid 87-69-4, Tartaric acid, biological studies 90-64-2, Mandelic acid 102-71-6, Triethanolamine, biological studies 106-11-6, Diethylene glycol monostearate 112-85-6, Behenic acid 115-83-3, Pentaerythritol tetrastearate 117-39-5, Quercetine 127-17-3, Pyruvic acid, biological

studies 137-66-6, Ascorbyl palmitate 331-39-5, Caffeic acid 451-13-8, Homogentisic acid 464-92-6, Asiatic acid 490-79-9, Gentisic acid 501-30-4, Kojic acid 506-30-9, Arachidic acid 515-69-5, .alpha.-Bisabolol 526-95-4, Gluconic acid 1256-86-6D, Cholesterol sulfate, alkali salts 1310-73-2, Sodium hydroxide, biological studies 1338-41-6, Sorbitan monostearate 1449-05-4, .beta.-Glycyrrhetic acid 2197-63-9, Dicetyl phosphate 4358-16-1D, Cholesterol phosphate, alkali salts 4602-84-0, Farnesol 5466-77-3, Octyl 4-methoxycinnamate 6640-03-5, Dimyristyl phosphate 6915-15-7, Malic acid 7235-40-7, .beta.-Carotene 7664-38-2, Phosphoric acid, biological studies 9004-99-3 9005-08-7, Polyoxyethylene distearate 9005-67-8, Polyoxyethylene sorbitan monostearate 9005-71-4, Polyoxyethylene sorbitan tristearate 10191-41-0, DL-.alpha.-Tocopherol 11099-07-3, Glyceryl stearate 11140-06-0, Glycerol palmitate 12694-22-3, Diglycerolmonostearate 16690-92-9D, Disodium glutamate, acyl derivs. 16830-15-2, Asiaticoside 18449-41-7, Madecassic acid 26658-19-5, Sorbitan tristearate 27195-16-0, Sucrose distearate 29548-30-9, Farnesyl acetate 30233-64-8, Glyceryl monobehenate 35054-79-6, Hydroxybutyric acid 36413-60-2, Quinic acid 39529-26-5, Decaglyceryl decaatearate 52225-20-4, DL-.alpha.-Tocopherol acetate 71185-87-0, Hexaglyceryl tristearate 74563-64-7, Phytanetriol 78418-01-6, Octanoyl 5-salicylic acid 88122-99-0, Octyl triazone 95461-64-6, Decaglyceryl pentastearate 95461-65-7, Hexaglyceryl monostearate 99734-29-9, Tetraglyceryl tristearate 99880-64-5, Glyceryl dibehenate 108528-58-1, Butylmethoxydibenzoylmethane 119831-19-5 123013-10-5 155633-54-8 191226-60-5

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

IT 1406-16-2, Vitamin d

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(glycerides; cosmetic and/or dermatol. compn. in form of oil-in-water emulsion formed by lipid vesicles dispersed in aq. phase contg. at least one active hydrophilic acid)

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IT Aromatic hydrocarbons, reactions

Aromatic hydrocarbons, reactions

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(aryl alkenes; in asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Alkenes, reactions

Alkenes, reactions

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); BIOL (Biological study); RACT (Reactant or reagent)

(aryl; in asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT **Antimicrobial agents**

Cytotoxic agents

(asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Proliferation inhibition

(proliferation inhibitors; asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT Dihydroxylation

(stereoselective; of E-stilbene in asym. synthesis and structure

activity relationship study of the combretastatin A1 SAR probes)

IT Structure-activity relationship  
(tubulin polymn.-inhibiting; asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT 109984-84-1 117048-62-1  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(**antimicrobial** activity of, in structure activity relationship study of the combretastatin A1 SAR probes)

IT 109984-83-0  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT 290295-02-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT 290295-03-3P 290295-04-4P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT 290294-99-4P 290295-00-0P  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(asym. synthesis, cytotoxicity, **antimicrobial** and tubulin polymn. inhibitory activity of, in structure activity relationship study of the combretastatin A1 SAR probes)

IT 290295-01-1P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(crystal structure; asym. synthesis and structure activity relationship study of the combretastatin A1 SAR probes)

IT 109971-64-4 168555-66-6  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(cytotoxicity and **antimicrobial** activity of, in structure activity relationship study of the combretastatin A1 SAR probes)

IT **288847-34-7 290295-05-5**  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(cytotoxicity of, in structure activity relationship study of the combretastatin A1 SAR probes)

IT 109971-63-3 117048-59-6 226989-89-5 226990-10-9  
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(cytotoxicity, **antimicrobial** and tubulin polymn. inhibitory activity of, in structure activity relationship study of the combretastatin A1 SAR probes)

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IT **Antimicrobial** agents  
Molecular sieves  
(compns. for sustained release of an **antimicrobial** gas)

IT Bentonite, biological studies  
Clays, biological studies  
Kaolin, biological studies  
Silica gel, biological studies

Zeolites (synthetic), biological studies  
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT Amines, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (primary; compns. for sustained release of an **antimicrobial** gas)

IT Drug delivery systems  
 (sustained-release; compns. for sustained release of an **antimicrobial** gas)

IT 10049-04-4, Chlorine oxide (ClO<sub>2</sub>)  
 RL: FMU (Formation, unclassified); RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); RACT (Reactant or reagent); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 14998-27-7, Chlorite  
 RL: FMU (Formation, unclassified); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 1344-28-1, Alumina, biological studies 7487-88-9, Magnesium sulfate, biological studies 7720-78-7, Ferrous sulfate 7722-64-7, Potassium permanganate 7757-82-6, Sodium sulfate, biological studies 7778-18-9, Calcium sulfate 10043-52-4, Calcium chloride, biological studies  
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 79-16-3, N-Methylacetamide 123-94-4 124-40-3, Dimethylamine, reactions 142-84-7, Dipropylamine 1323-83-7, Glycerol distearate  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (compns. for sustained release of an **antimicrobial** gas)

IT **196805-61-5P**  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 20101-88-6P 116882-77-0P 185981-96-8P 262852-72-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 75-12-7, Formamide, biological studies 75-31-0, Isopropylamine, biological studies 79-06-1, 2-Propenamide, biological studies 111-41-1 124-68-5 140-31-8, 1-(2-Aminoethyl)piperazine 141-43-5, biological studies 929-06-6, 2-(2-Aminoethoxy)ethanol 1323-39-3, Propylene glycol monostearate 2210-25-5 7209-38-3, 1,4-Piperazinedipropylamine 7758-19-2, Sodium chlorite 27578-60-5, 1-(2-Aminoethyl)piperidine 93505-76-1  
 RL: RCT (Reactant); THU (Therapeutic use); BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 27754-92-3P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT 74-90-8, Hydrocyanic acid, biological studies 7446-09-5, Sulfur dioxide, biological studies 7782-50-5, Chlorine, biological studies 7783-06-4, Hydrogen sulfide, biological studies 7791-21-1, Chlorine oxide (Cl<sub>2</sub>O) 9011-13-6, Maleic anhydride-styrene copolymer 10102-43-9, Nitric oxide, biological studies 10102-44-0, Nitrogen dioxide, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (compns. for sustained release of an **antimicrobial** gas)

IT **Antibacterial agents**  
Antibiotic resistance  
Antibiotics

(prepn. of antibiotic oxazolidinone derivs.)

IT	252259-90-8P	252259-95-3P	252259-96-4P	252259-97-5P	252259-99-7P
	252260-01-8P	252260-02-9P	<b>252260-05-2P</b>	252260-13-2P	
	252260-17-6P	252260-18-7P	252260-26-7P	252260-31-4P	252260-33-6P
	252279-69-9P	252279-74-6P	252279-76-8P	252279-81-5P	252279-83-7P
	252279-89-3P	252279-98-4P	252280-02-7P	252280-03-8P	252280-04-9P
	252280-06-1P	252320-18-6P	252320-22-2P	252320-26-6P	252320-34-6P
	252320-38-0P	252320-41-5P	252320-45-9P	252320-50-6P	252320-84-6P
	252321-18-9P	252328-65-7P	252328-66-8P	252328-70-4P	252328-72-6P
	252328-74-8P	252328-75-9P	252328-77-1P	252570-65-3P	

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of antibiotic oxazolidinone derivs.)

IT	252259-87-3P	252259-88-4P	252259-89-5P	252259-91-9P	252259-92-0P
	252259-93-1P	252259-94-2P	252259-98-6P	252260-00-7P	
	<b>252260-03-0P</b>	252260-04-1P	252260-06-3P	252260-07-4P	
	252260-08-5P	252260-09-6P	252260-10-9P	252260-11-0P	252260-12-1P
	252260-14-3P	252260-15-4P	252260-16-5P	252260-19-8P	252260-20-1P
	252260-21-2P	252260-22-3P	252260-23-4P	252260-25-6P	252260-27-8P
	252260-28-9P	252260-29-0P	252260-30-3P	252260-32-5P	252260-34-7P
	252279-68-8P	252279-70-2P	252279-71-3P	252279-72-4P	252279-73-5P
	252279-75-7P	252279-77-9P	252279-78-0P	252279-79-1P	252279-80-4P
	252279-82-6P	252279-84-8P	252279-85-9P	252279-86-0P	252279-87-1P
	252279-88-2P	252279-90-6P	252279-91-7P	252279-92-8P	252279-93-9P
	252279-94-0P	252279-95-1P	252279-96-2P	252279-97-3P	252279-99-5P
	252280-00-5P	252280-01-6P	252280-05-0P	252280-07-2P	252280-08-3P
	252280-09-4P	252280-10-7P	252280-11-8P	252280-12-9P	252280-13-0P
	252280-14-1P	252280-15-2P	252280-16-3P	252318-89-1P	252318-91-5P
	252318-93-7P	252318-95-9P	252318-97-1P	252319-00-9P	252319-06-5P
	252320-16-4P	252320-24-4P	252320-29-9P	252320-30-2P	252320-32-4P
	252320-37-9P	252320-39-1P	252320-42-6P	252320-44-8P	252320-47-1P
	252320-48-2P	252320-51-7P	252320-65-3P	252320-74-4P	252320-82-4P
	252320-86-8P	252320-87-9P	252320-88-0P	252320-89-1P	252320-90-4P
	252320-92-6P	252320-93-7P	252320-96-0P	252320-97-1P	252320-99-3P
	252321-15-6P	252321-16-7P	252321-17-8P	252321-20-3P	252321-21-4P
	252321-23-6P	252321-24-7P	252328-62-4P	252328-63-5P	252328-64-6P
	252328-67-9P	252328-68-0P	252328-69-1P	252328-71-5P	252328-73-7P
	252328-76-0P	252328-78-2P			

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of antibiotic oxazolidinone derivs.)

IT	75-36-5, Acetyl chloride	76-83-5, Chlorotriphenylmethane	77-76-9, 2,2-Dimethoxypropane	77-79-2, 79-04-9, Chloroacetyl chloride	79-22-1, Methyl chloroformate
	100-52-7, Benzaldehyde, reactions	104-98-3, 3-(4-Imidazolyl)acrylic acid	107-21-1D, Ethyleneglycol, resin bound	108-24-7, Acetic anhydride	109-01-3, N-Methylpiperazine
	109-84-2, 2-Hydroxyethylhydrazine	110-86-1, Pyridine, reactions	110-91-8, Morpholine, reactions	111-77-3, 2-(2-Methoxyethoxy)ethanol	111-92-2, Di-n-butylamine
	123-38-6, Propanal, reactions	177-11-7, 1,4-Dioxo-8-azaspiro[4,5]decane	288-32-4, 1H-Imidazole, reactions	288-88-0, 1H-1,2,4-Triazole	369-34-6, 3,4-Difluoronitrobenzene
	372-39-4, 3,5-Difluoroaniline	501-53-1, Benzyl chloroformate	502-85-2, Butanoic acid, 4-hydroxy-, monosodium salt	540-51-2, 2-Bromoethanol	541-41-3, Ethyl chloroformate
	693-98-1, 2-Methylimidazole	814-68-6, Acryloyl chloride	822-36-6, 4-Methylimidazole	872-35-5,	

2-Mercaptoimidazole 1003-07-2, 3-Hydroxyisothiazole 1074-59-5,  
 3-(4-Imidazolyl)propionic acid 1445-73-4, N-Methyl-4-piperidone  
 3034-53-5, 2-Bromothiazole 3040-38-8 3251-69-2 3262-72-4,  
 N-BOC-L-serine 3612-20-2, N-Benzyl-4-piperidone 4252-82-8 5570-27-4  
 5728-07-4, 3-Hydroxy-1,2,5-thiadiazole 5736-06-1 5777-20-8,  
 3-Hydroxyisoxazole 6294-89-9, Methyl carbazate 6915-15-7 7126-38-7,  
 3-Cyanopyrrole 7693-46-1, 4-Nitrophenyl chloroformate 10004-44-1,  
 3-Hydroxy-5-methylisoxazole 10068-07-2 13831-31-7, Acetoxyacetyl  
 chloride 16024-56-9, 2-(2-Methoxyethoxy)acetic acid 33252-28-7,  
 2-Chloro-5-cyanopyridine 33996-33-7 36394-75-9, S-2-Acetoxypropionyl  
 chloride 45469-93-0 51138-06-8 52386-40-0 52768-17-9,  
 1-(4-Aminophenyl)pyrrole 59032-27-8 60456-23-7, S-Glycidol  
 60456-26-0, R-Glycidyl butyrate 63024-77-1, 3-Chloromethylbenzoyl  
 chloride 63881-16-3 74181-34-3, 2,2-Dimethyl-1,3-dioxan-5-one  
 82796-40-5 87508-42-7 97673-82-0 102045-96-5 104706-47-0,  
 R-3-Pyrrolidinol hydrochloride 114746-70-2 116258-17-4 116561-26-3  
 117924-33-1, Di-tert-butyl N,N-diethylphosphoramidite 122536-77-0  
 149524-30-1 150994-99-3 154590-62-2 162046-38-0 168828-82-8  
 179620-47-4 181997-23-9 181997-26-2 185099-69-8 188975-33-9  
 194351-00-3 195816-25-2 196298-73-4 196299-06-6 205646-91-9  
 218916-64-4, DL-N-BOC-isoserine 252350-02-0 252350-55-3,  
 N-Acetyl-L-isoserine 252350-65-5 252366-06-6 252366-92-0  
 252366-93-1 252366-94-2 252367-08-1 252367-70-7 252367-93-4  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of antibiotic oxazolidinone derivs.)

IT 3068-00-6P, 1,2,4-Butanetriol 93351-55-4P 114458-03-6P 157556-73-5P  
 160446-35-5P 172967-24-7P 178680-96-1P 209960-26-9P 209960-27-0P  
 252320-81-3P 252320-85-7P 252320-89-1DP, resin bound 252320-90-4DP,  
 resin bound 252328-79-3P 252328-80-6P 252328-81-7P 252328-82-8P  
 252328-83-9P 252328-84-0P 252328-85-1P 252328-86-2P 252328-94-2P  
 252328-98-6P 252329-02-5P 252329-06-9P 252329-08-1P 252329-11-6P  
 252329-85-4P 252329-88-7P 252329-91-2P 252330-05-5P 252330-06-6P  
 252330-09-9P 252330-11-3P 252330-13-5P 252330-16-8P 252330-19-1P  
 252330-22-6P 252330-24-8P 252330-27-1P 252336-60-0P 252336-62-2P  
 252336-63-3P 252336-65-5P 252336-66-6P 252336-67-7P 252336-69-9P  
 252336-72-4P 252336-73-5P 252336-75-7P 252336-77-9P 252336-78-0P  
 252336-79-1P 252336-81-5P 252336-82-6P 252336-84-8P 252336-85-9P  
 252336-87-1P 252336-88-2P 252336-89-3P 252336-91-7P 252336-92-8P  
 252336-93-9P 252336-94-0P 252337-01-2P 252337-07-8P 252337-13-6P  
 252337-14-7P 252337-15-8P 252337-16-9P 252337-17-0P 252337-18-1P  
 252337-19-2P 252337-20-5P 252337-21-6P 252337-22-7P 252337-23-8P  
 252337-24-9P 252337-25-0P 252337-28-3DP, resin bound 252337-29-4P  
 252340-70-8P 252340-72-0P 252340-74-2P 252340-76-4P 252340-78-6P  
 252340-82-2P 252340-85-5P 252340-88-8P 252340-90-2P 252340-92-4P  
 252340-95-7P 252340-97-9P 252341-00-7P 252341-02-9P 252342-23-7P  
 252342-30-6P 252342-32-8P 252342-33-9P 252342-34-0P 252342-35-1P  
 252342-36-2P 252344-71-1P 252344-94-8P 252345-06-5P 252345-14-5P  
 252345-22-5P 252350-38-2P 252350-53-1P 252570-66-4P 252570-67-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)

(prepn. of antibiotic oxazolidinone derivs.)

L9 ANSWER 40 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Skin

(dermis; preservation of collagen based tissues)

IT Antibiotics

Antimicrobial agents

Artery

Buffers

Detergents

Glycosylation

Maillard reaction

Nerve

Preservation solutions (tissue)

Transplant and Transplantation

Vein

(preservation of collagen based tissues)

IT Collagens, biological studies

Enzymes, biological studies

Flavonoids

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preservation of collagen based tissues)

IT Cryopreservation

(tissue; preservation of collagen based tissues)

IT Heart

(valve; preservation of collagen based tissues)

IT Umbilical cord

(vessels; preservation of collagen based tissues)

IT 50-81-7, L-Ascorbic acid, biological studies 59-02-9, .alpha.-Tocopherol

60-00-4, Edta, biological studies 67-68-5, DmsO, biological studies

70-18-8, Reduced glutathione, biological studies 79-17-4, Aminoguanidine

83-44-3, Deoxycholic acid **83-86-3**, Phytic acid 124-07-2,

Octanoic acid, biological studies 138-14-7, Deferoxamine mesylate

7647-14-5, Sodium chloride, biological studies 9001-05-2, Catalase

9001-84-7, Phospholipase A 9001-86-9, Phospholipase C 9003-98-9, DNase

9036-19-5, tert-Octylphenoxypolyethoxyethanol 9050-36-6, Maltodextrin

9054-89-1, Superoxide dismutase 29836-26-8, n-Octyl .beta.-D-

glucopyranoside 53188-07-1, 6-Hydroxy-2,5,7,8-tetramethylchroman-2-

carboxylic acid 75621-03-3, Chaps

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preservation of collagen based tissues)

L9 ANSWER 58 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Bactericides, Disinfectants, and Antiseptics

(prepn. of copper, tin, and zinc salts of saccharide derivs. for  
personal care products)

IT Tooth

(disease, prevention of caries; prepn. of copper, tin, and zinc salts  
of saccharide derivs. for personal care products)

IT Gingiva

(disease, gingivitis, prevention of gingivitis; prepn. of copper, tin,  
and zinc salts of saccharide derivs. for personal care products)

IT Mouth

(disease, halitosis, prevention of halitosis; prepn. of copper, tin,  
and zinc salts of saccharide derivs. for personal care products)

IT Tooth

(disease, plaque, prevention of dental plaque; prepn. of copper, tin,  
and zinc salts of saccharide derivs. for personal care products)

IT 170483-97-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of copper, tin, and zinc salts of saccharide derivs. for  
personal care products)

IT 170483-98-4

RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES  
(Uses)

(prepn. of copper, tin, and zinc salts of saccharide derivs. for  
personal care products)

IT 3671-99-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of copper, tin, and zinc salts of saccharide derivs. for  
personal care products)

IT 56-73-5DP, Glucose-6-phosphate, Sn and Cu salts 59-56-3DP,  
 Glucose-1-phosphate, Sn and Cu salts **488-69-7DP**,  
 Fructose-1,6-diphosphate, Sn and Cu salts 643-13-0DP,  
 Fructose-6-phosphate, Sn and Cu salts 7440-31-5DP, Tin, salts of  
 saccharide derivs. 7440-50-8DP, Copper, salts of saccharide derivs.  
 7440-66-6DP, Zinc, salts of saccharide derivs. 10139-18-1DP,  
 Glucose-1,6-diphosphate, Sn and Cu salts 15978-08-2DP,  
 Fructose-1-phosphate, Sn and Cu salts  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (prepn. of copper, tin, and zinc salts of saccharide derivs. for  
 personal care products)

L9 ANSWER 59 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Rice  
 (Pseudomonas glumae infection of spikelets of)

IT Microorganism growth  
 (by Pseudomonas glumae, in rice spikelets)

IT Carbohydrates and Sugars, biological studies  
 RL: BIOL (Biological study)  
 (growth of Pseudomonas glumae in media contg., starch biosynthesis by  
 rice grains in relation to)

IT Pseudomonas glumae  
 (rice spikelets infection with)

IT Plant growth and development  
 (maturation, Pseudomonas glumae infection of rice spikelets in relation  
 to)

IT 14698-29-4, Oxolinic acid  
 RL: BIOL (Biological study)  
 (against Pseudomonas glumae infection of rice spikelets)

IT 50-99-7, Glucose, biological studies 56-73-5, Glucose-6-phosphate  
 57-04-5, Dihydroxyacetone phosphate 57-48-7, Fructose, biological  
 studies 57-50-1, Sucrose, biological studies 59-56-3,  
 Glucose-1-phosphate 133-89-1, UDP-glucose **488-69-7**,  
 Fructose-1,6-bisphosphate 643-13-0, Fructose-6-phosphate 5746-57-6,  
 L-.alpha.-Glycerophosphate 9005-25-8, Starch, biological studies  
 RL: BIOL (Biological study)  
 (growth of Pseudomonas glumae in media contg., starch biosynthesis by  
 rice grains in relation to)

L9 ANSWER 65 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Glycolysis  
 (by Staphylococcus aureus, NMR of)

IT Staphylococcus aureus  
 (glucose metab. and lactate transport in, carbon-13 and phosphorus-31  
 NMR of)

IT Nuclear magnetic resonance  
 (of carbon-13 and phosphorus-31, of glucose metab. and lactate  
 transport in Staphylococcus aureus)

IT Biological transport  
 (of lactate, by Staphylococcus aureus, NMR of)

IT Nucleotides, biological studies  
 RL: PROC (Process)  
 (of Staphylococcus aureus, NMR of)

IT 7439-96-5, biological studies  
 RL: BIOL (Biological study)  
 (absorption of, by Staphylococcus aureus, NMR in relation to)

IT 64-17-5, biological studies 69-65-8  
 RL: FORM (Formation, nonpreparative)  
 (formation of, in glucose metab. by Staphylococcus aureus, NMR of)

IT 7782-44-7, biological studies  
 RL: BIOL (Biological study)  
 (glucose metab. by Staphylococcus aureus response to, NMR in relation



to)

IT 50-99-7, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
 (metab. of, by Staphylococcus aureus, NMR of)

IT **488-69-7** 9041-38-7 14265-44-2, biological studies  
 RL: PROC (Process)  
 (of Staphylococcus aureus, NMR of)

IT 50-21-5, biological studies  
 RL: BIOL (Biological study)  
 (transport of, by Staphylococcus aureus, NMR of)

IT 124-07-2, biological studies  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (Staphylococcus aureus response to, NMR of)

L9 ANSWER 66 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Candida albicans  
 (infection with, fructose diphosphate effect on, phagocytosis stimulation in relation to)

IT Phagocytosis  
 (stimulation of, fructose diphosphate effect on Candida albicans infections in relation to)

IT **488-69-7**  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (antimicrobial activity of, in Candida albicans infection, phagocytosis stimulation and ATP in relation to)

IT 56-65-5, biological studies  
 RL: BIOL (Biological study)  
 (fructose diphosphate effect on Candida albicans infections in relation to)

L9 ANSWER 67 OF 67 CAPLUS COPYRIGHT 2003 ACS

IT Saccharomyces cerevisiae  
 (H2SO3 effect on)

IT Escherichia coli  
 (sulfurous acid effect on)

IT Respiration, plant  
 (sulfurous acid effect on, by Escherichia coli and Saccharomyces cerevisiae)

IT Coenzyme A, S-succinate  
 (formation from 2-oxoglutaric acid by Escherichia coli, sulfurous acid effect on)

IT **1981-49-3**, Glyceric acid, anhydride with H3PO4, 3-phosphate  
 (formation from 3-phosphoglyceraldehyde by Saccharomyces cerevisiae, sulfurous acid effect on)

IT 328-42-7, Oxalacetic acid  
 (formation of, from isocitric and malic acids, by Escherichia coli, sulfurous acid effect on)

IT 591-59-3, Glyceraldehyde, 3-phosphate  
 (glyceric acid diphosphate formation from, by Saccharomyces cerevisiae, sulfurous acid effect on)

IT 6915-15-7, Malic acid  
 (oxalacetic acid formation from, by Escherichia coli, sulfurous acid effect on)

IT 7782-99-2, Sulfurous acid  
 (Escherichia coli and Saccharomyces cerevisiae response to)

IT 328-50-7, Glutaric acid, 2-oxo-  
 (S-succinyl coenzyme A formation from, by Escherichia coli, sulfurous acid effect on)

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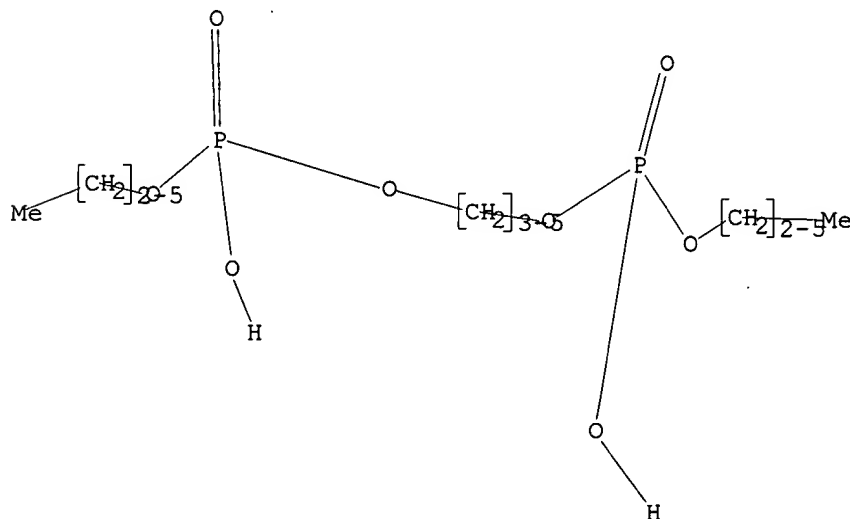
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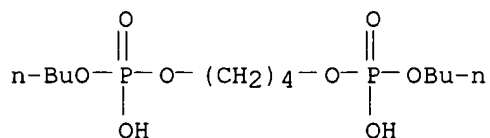
FULL SEARCH INITIATED 16:10:40 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 9285 TO ITERATE

100.0% PROCESSED 9285 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.02

L12 1 SEA SSS FUL L10

=> d scan

L12 1 ANSWERS REGISTRY COPYRIGHT 2003 ACS  
IN Phosphoric acid, P,P'-1,4-butanediyl P,P'-dibutyl ester (9CI)  
MF C12 H28 O8 P2



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	148.15	562.21
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-19.53

FILE 'CAPLUS' ENTERED AT 16:10:51 ON 13 MAY 2003  
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FILE COVERS 1907 - 13 May 2003 VOL 138 ISS 20  
FILE LAST UPDATED: 12 May 2003 (20030512/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 112

L13 1 L12

=> d ibib abs hitstr

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:185692 CAPLUS

DOCUMENT NUMBER: 136:236873

TITLE: Protonated antimicrobial compounds

INVENTOR(S): Dale, Roderic M. K.; Gatton, Steven L.; Arrow, Amy; Thompson, Terry

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 28 pp., Cont.-in-part of U.S. Ser. No. 281,858.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002032164	A1	20020314	US 2001-847654	20010503
US 6211349	B1	20010403	US 1998-222009	19981230
WO 2002089581	A1	20021114	WO 2002-US13910	20020503

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:  
US 1998-222009 A2 19981230  
US 1999-281858 A2 19990331  
US 2001-847654 A 20010503

OTHER SOURCE(S): MARPAT 136:236873

AB The present invention provides protonated compds. X-Y-Z (Y = O, P, C; X, Z = end blocking groups preventing degrdn. of the mol. and providing stability) having antimicrobial activity and a sanitizing compn. comprising a protonated compd. and a metal salt of a carboxylic acid. The protonated compds. and compns. provide efficacious antimicrobial activity against resistant strains of bacteria and opportunistic fungi. For

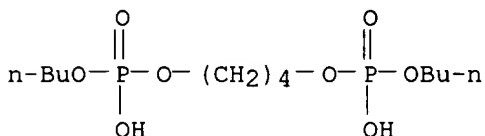
example, the s.c. administration of compds. Nu-2, Nu-3, Nu-4, and Nu-5 (12 mg/mL) were effective in attenuating the incidence of infection of burn wounds in a mice model, a ribose deriv. Nu-4 being the most efficacious providing 100% survival.

IT 403717-08-8

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(protonated antimicrobial compds. and compns.)

RN 403717-08-8 CAPLUS

CN Phosphoric acid, P,P'-1,4-butanediyl P,P'-dibutyl ester (9CI) (CA INDEX NAME)



=> file beilstein  
COST IN U.S. DOLLARS

SINCE FILE	TOTAL
ENTRY	SESSION
5.37	567.58

FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE	TOTAL
ENTRY	SESSION
-0.65	-20.18

CA SUBSCRIBER PRICE

FILE 'BEILSTEIN' ENTERED AT 16:12:16 ON 13 MAY 2003

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FILE LAST UPDATED ON APRIL 10, 2003

FILE COVERS 1771 TO 2003.

\*\*\* FILE CONTAINS 8,643,097 SUBSTANCES \*\*\*

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For additional information see HELP RXS. <<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

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=> d his

(FILE 'HOME' ENTERED AT 15:38:34 ON 13 MAY 2003)

FILE 'CAPLUS, MEDLINE' ENTERED AT 15:39:25 ON 13 MAY 2003

L1 153627 S ANTIMICROB? OR ANTIBACTER?  
L2 1795 S L1 AND PHOSPHOR?  
L3 54 S L1 AND PHOSPHOROUS  
L4 13 S L3 AND PHOSPHOR?/TI

FILE 'STNGUIDE' ENTERED AT 15:43:36 ON 13 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:49:01 ON 13 MAY 2003

L5 STRUCTURE UPLOADED  
L6 STRUCTURE UPLOADED  
L7 50 S L6  
L8 3173 S L6 FULL

FILE 'CAPLUS' ENTERED AT 15:50:14 ON 13 MAY 2003

L9 67 S L8 AND ( ANTIMICROB? OR ANTIBACTER?)  
L10 STRUCTURE UPLOADED

FILE 'REGISTRY' ENTERED AT 16:10:16 ON 13 MAY 2003

L11 0 S L10  
L12 1 S L10 FULL

FILE 'CAPLUS' ENTERED AT 16:10:51 ON 13 MAY 2003

L13 1 S L12

FILE 'BEILSTEIN' ENTERED AT 16:12:16 ON 13 MAY 2003

=> s l10 full

FULL SEARCH INITIATED 16:12:29 FILE 'BEILSTEIN'  
FULL SCREEN SEARCH COMPLETED - 2206 TO ITERATE

100.0% PROCESSED 2206 ITERATIONS  
SEARCH TIME: 00.00.12

0 ANSWERS

L14 0 SEA SSS FUL L10

=> s l6 full

FULL SEARCH INITIATED 16:13:02 FILE 'BEILSTEIN'  
FULL SCREEN SEARCH COMPLETED - 12978 TO ITERATE

87.9% PROCESSED 11407 ITERATIONS

1112 ANSWERS

100.0% PROCESSED 12978 ITERATIONS  
SEARCH TIME: 00.00.25

1314 ANSWERS

L15 1314 SEA SSS FUL L6

=> d ibib abs hitstr 2-22 it

L19 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2002:18652 CAPLUS

DOCUMENT NUMBER: 136:314466

TITLE: Utilization of selected dissolved organic  
**phosphorus** compounds by **bacteria** in  
lake water under non-limiting orthophosphate  
conditions

AUTHOR(S): Siuda, W.; Chrost, R. J.

CORPORATE SOURCE: Department of Microbial Ecology, Institute of  
Microbiology, University of Warsaw, Warsaw, PL-02-096,  
Pol.

SOURCE: Polish Journal of Environmental Studies (2001), 10(6),  
475-483

CODEN: PJESE2; ISSN: 1230-1485

PUBLISHER: HARD Publishing Co.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB This study presents results on the availability of various org. P compds.  
for **bacteria** from mesotrophic Lake Constance. The rates of  
hydrolysis of all tested compds. added to the analyzed lake water samples  
did not correlate with assimilation of liberated inorg. P.  
.beta.-Glycerophosphate and AMP were the most efficiently hydrolyzed by  
**bacterial** phosphohydrolytic enzymes. The highest specific P  
uptake was found in water samples supplemented with nucleotides. The  
fastest increase in **bacterial** nos. was obsd. in water samples  
enriched with DNA, RNA, ATP and phytin. Anal. of discrepancies between  
rates of hydrolysis, specific P uptake and **bacterial** growth  
rates in samples enriched with various org. P compds. suggested that  
**bacterial** phosphatases participated substantially in processes of  
dissolved org. C compd. decompn. in lake water, whereas 5'-nucleotidase  
was mainly responsible for **bacterial** P demand.

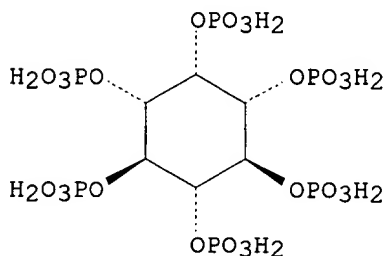
IT 3615-82-5, Phytin

RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
(utilization of selected dissolved org. phosphorus by **bacteria**  
in lake water under non-limiting orthophosphate conditions)

RN 3615-82-5 CAPLUS

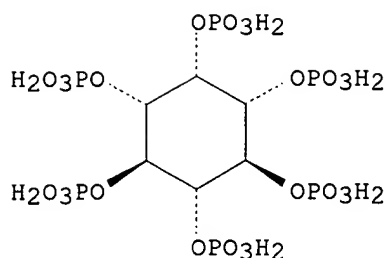
CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



x Ca

x Mg



●x Ca

●x Mg

IT Lake waters  
(mesotrophic; utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)

IT Enzymes, processes  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
(phosphohydrolytic; utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)

IT DNA  
Nucleotides, processes  
RNA  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
(utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)

IT 7723-14-0, Phosphorus, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dissolved org.; utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)

IT 56-65-5, ATP, processes 56-73-5, Glucose-6-phosphate 61-19-8, AMP, processes 3615-82-5, Phytin 9027-73-0, 5'-Nucleotidase 17181-54-3, .beta.-Glycerophosphate  
RL: BCP (Biochemical process); BIOL (Biological study); PROC (Process)  
(utilization of selected dissolved org. phosphorus by **bacteria** in lake water under non-limiting orthophosphate conditions)

REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 3 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:930591 CAPLUS

DOCUMENT NUMBER: 136:36690

TITLE: Effects of **microbial** phytase on phytate **phosphorus** utilization in plant feedstuffs for broiler chicks

AUTHOR(S): Yonemochi, Chisato; Takagi, Hisao; Arima, Yasushi; Okada, Toru

CORPORATE SOURCE: Japan Scientific Feeds Association, Chiyoda-Ku, Tokyo, 101-0062, Japan

SOURCE: Journal of Poultry Science (2001), 38(4), 317-323  
CODEN: JPSOBX

PUBLISHER: Japan Poultry Science Association



DOCUMENT TYPE: Journal

LANGUAGE: English

AB The reported effects of dietary supplemented **microbial** phytase on the utilization of phytate phosphorus (pP) differ widely by investigators. In order to clarify the differences, the contents of total phosphorus (P) and pP in commonly used five plant feedstuffs, corn (C), soybean meal (SM), defatted rice bran (RB), wheat bran (WB), and high level flour wheat bran (FWB) were detd., and the effect of **microbial** phytase on utilization of pP in these feedstuffs was studied using male broiler chicks. The contents of total P in plant feedstuffs were detd. to be 0.25, 0.67, 2.81, 1.04, and 0.54%, and those of pP to be 0.15, 0.31, 2.02, 0.71, and 0.32% in C, SM, RB, WB, and FWB, resp. The ratios of pP to total P ranged from 47.2% (for SM) to 71.8% (for RB). The exptl. diets were formulated using C, SM, RB, WB, or FWB as a sole source of pP. Male broiler chicks were fed the diets supplemented by 0 or 500 phytase units/kg of diet **microbial** phytase for 10 days from 7 to 17 days of age. There were large differences in pP retention among plant feedstuffs without **microbial** phytase. Esp. the retention was low (5.4%) in the C and high (73.4%) in the WB. The pP retention in SM, RB and FWB were 52.3, 42.5, and 51.1%, resp. On the other hand, with the addn. of **microbial** phytase, pP retention in C, SM, RB, WB, and FWB increased to 69.9, 75.0, 78.6, 86.6, and 84.1%, resp.

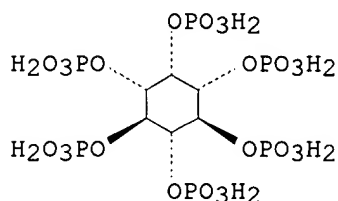
IT 83-86-3, Phytic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Rice (*Oryza sativa*)

(bran, defatted; effects of **microbial** phytase on phytate  
phosphorus utilization in plant feedstuffs for broiler chicks)

IT Wheat flour

(bran; effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

IT Chicken (*Gallus domesticus*)

(broiler; effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

IT Corn

Feed

Feeding experiment

Soybean meal

Wheat bran

(effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

IT Bran

(rice, defatted; effects of **microbial** phytase on phytate  
phosphorus utilization in plant feedstuffs for broiler chicks)

IT 37341-58-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); FFD

(Food or feed use); BIOL (Biological study); USES (Uses)  
(Phytase Kyowa; effects of **microbial** phytase on phytate  
phosphorus utilization in plant feedstuffs for broiler chicks)  
IT **83-86-3**, Phytic acid 7723-14-0, Phosphorus, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(effects of **microbial** phytase on phytate phosphorus  
utilization in plant feedstuffs for broiler chicks)

L19 ANSWER 4 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:746487 CAPLUS

DOCUMENT NUMBER: 136:150501

TITLE: Dietary **microbial** phytase supplementation  
and the utilization of **phosphorus**, trace  
minerals and protein by rainbow trout [*Oncorhynchus*  
*mykiss* (Walbaum)] fed soybean meal-based diets  
AUTHOR(S): Sugiura, S. H.; Gabaudan, J.; Dong, F. M.; Hardy, R.  
W.

CORPORATE SOURCE: Hagerman Fish Culture Experiment Station, University  
of Idaho, Hagerman, ID, USA

SOURCE: Aquaculture Research (2001), 32(7), 583-592

CODEN: AQREFC; ISSN: 1355-557X

PUBLISHER: Blackwell Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Effects of thermal and enzymic treatments of soybean meal on apparent  
absorption of total P, phytate P, N (protein), ash, Ca, Mg, Cu, Fe, Mn, Sr  
and Zn were examd. using rainbow trout, *Oncorhynchus mykiss* (Walbaum), as  
the test species. Absorption of the test nutrients was estd. using  
yttrium as an inert non-absorbable indicator. Thermal treatments  
(microwaving, dry roasting, steam heating, cooking) had no measurable  
effect on the apparent absorption of P and other minerals. Phytase  
supplementation increased the apparent absorption of P, N (protein), ash,  
calcium, Mg, Cu, Fe, Sr and Zn in low-ash diets contg. soybean meal, but  
had little effect in high-ash diets contg. both soybean and fish meal. In  
low-ash diets, the apparent absorption of P increased in accord with the  
level of phytase added to the diet, from 27% (no phytase added) up to 90%  
(phytase added, 4000 units kg<sup>-1</sup> diet) or 93% (predigested with phytase,  
200 units kg<sup>-1</sup> soybean meal). In high-ash diets, dietary acidification  
with citric acid decreased the effect of phytase, whereas in low-ash  
diets, acidification markedly increased the effect of the enzyme.  
Excretion of P in the feces of fish fed a low-ash diet contg.  
phytase-treated soybean meal was 0.32 g per kg diet consumed, a 95%-98%  
redn. compared with P excretion by fish consuming com. trout feeds.

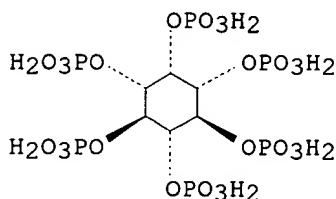
IT **83-86-3**, Phytic acid

RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dietary **microbial** phytase supplementation and the  
utilization of P, trace minerals and protein by rainbow trout fed  
soybean meal-based diets)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Aquaculture  
Digestibility  
Feeding experiment  
Heat treatment  
Nutrition, animal  
Oncorhynchus mykiss  
Soybean meal  
(dietary **microbial** phytase supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT Mineral elements, biological studies  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dietary **microbial** phytase supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT Diet  
(supplements; dietary **microbial** phytase supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT Biological transport  
(uptake; dietary **microbial** phytase supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

IT 77-92-9, Citric acid, biological studies **83-86-3**, Phytic acid  
7439-89-6, Iron, biological studies 7439-95-4, Magnesium, biological studies 7439-96-5, Manganese, biological studies 7440-24-6, Strontium, biological studies 7440-50-8, Copper, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus, biological studies 7727-37-9, Nitrogen, biological studies 37341-58-5, Phytase  
RL: BSU (Biological study, unclassified); BIOL (Biological study)  
(dietary **microbial** phytase supplementation and the utilization of P, trace minerals and protein by rainbow trout fed soybean meal-based diets)

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 5 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2001:209680 CAPLUS

DOCUMENT NUMBER: 134:310174

TITLE: Nonphytate **phosphorus** requirement and **phosphorus** excretion of broiler chicks fed diets composed of normal or high available phosphate corn with and without **microbial** phytase

AUTHOR(S): Waldroup, P. W.; Kersey, J. H.; Saleh, E. A.; Fritts, C. A.; Yan, F.; Stilborn, H. L.; Crum, R. C., Jr.; Raboy, V.

CORPORATE SOURCE: Poultry Science Department, University of Arkansas, Fayetteville, AR, 72701, USA

SOURCE: Poultry Science (2000), 79(10), 1451-1459  
CODEN: POSCAL; ISSN: 0032-5791

PUBLISHER: Poultry Science Association, Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A study was conducted to evaluate the ability of the young (0 to 3 wk) broiler chicken to utilize the P provided by a high available P corn [HAPC; 0.27% total P and 0.17% nonphytate P] in comparison with yellow dent corn (YDC; 0.23% total P and 0.03% nonphytate P), and to det. the extent to which supplementation with exogenous phytase enzyme could reduce the demands for dietary P and subsequently reduce P excretion. Diets prepd. using the two types of corn differed in the amt. of phytate-bound P, with the HAPC diets contg. approx. 50% less phytate-bound P. Treatment

diets were prepd. by varying the amt. of dicalcium phosphate, and ranged from 0.10 to 0.50% nonphytate P for YDC diets, and from 0.18 to 0.50% nonphytate P for HAPC diets. Sublots of each diet were supplemented with 800 units/kg phytase. Each diet was fed to six pens of five male chicks of a com. broiler strain from 1 to 21 d of age. Regression anal. was used to est. nonphytate P requirements for each corn type with and without phytase supplementation. The greatest need for nonphytate P was for max. tibia ash, with requirements of 0.39, 0.29, 0.37, and 0.32% in diets with YDC, YDC plus phytase, HAPC, and HAPC plus phytase, resp. Addn. of phytase liberated approx. 50% of the phytate-bound P from each diet. These levels were sufficient to support body wt., feed conversion, and livability. Fecal P content of broilers fed diets with YDC at the NRC (1994) recommended level of 0.45% nonphytate P was 1.21%, whereas at the resp. requirement points indicated above, the P content was 1.09, 0.87, 0.78, and 0.64% in feces from broilers fed diets with YDC, YDC plus phytase, HAPC, and HAPC plus phytase, resp. Thus, fecal P output could be reduced while maintaining optimum performance by the use of reduced dietary nonphytate P, introduction of HAPC, and phytase supplementation. One of the greatest benefits of phytase supplementation appeared to be maintaining livability at lower dietary levels of nonphytate P.

IT 83-86-3, Phytic acid

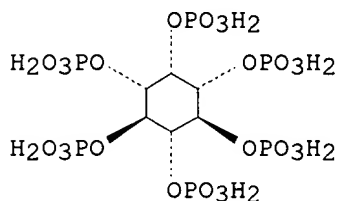
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial** phytase)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Chicken (Gallus domesticus)

Corn

Feces

Growth, animal

Nutrition, animal

(nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial** phytase)

IT 83-86-3, Phytic acid 37341-58-5, Phytase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial** phytase)

IT 7723-14-0, Phosphorus, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(nonphytate phosphorus requirement and phosphorus excretion of broiler chicks in response to high/normal phosphate-corn and **microbial** phytase)

REFERENCE COUNT:

27

THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 6 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:635249 CAPLUS

DOCUMENT NUMBER: 134:41575

TITLE: Effects of **microbial** phytase on growth and utilization of **phosphorus** in *Carassius auratus gibelio*

AUTHOR(S): Yu, Feng-Nian; Wang, Dao-Zun

CORPORATE SOURCE: Shanghai Fisheries University, Shanghai, 200090, Peop. Rep. China

SOURCE: Zhongguo Shuichan Kexue (2000), 7(2), 106-109

CODEN: ZSKEFS; ISSN: 1005-8737

PUBLISHER: Zhongguo Shuichan Kexue Bianjibu

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

AB **Microbial** phytase was added to the goldfish (*Carassius auratus gibelio*) feed at 500 or 1000 U/kg. The effects of added phytase on in vitro digestion of phytate in soybean meal/fish meal based diets were detd. After in vitro digestion with 500 or 1000 U phytase/kg feed the phytin-P contents decreased from 2.92 to 1.10 and 0.56% in feed without added monocalcium phosphate and from 2.94 to 1.11 and 0.58% in feed with 0.9% added monocalcium phosphate. The effects on fish growth parameters, body compn. (protein, lipid, total P), and P metab. were analyzed.

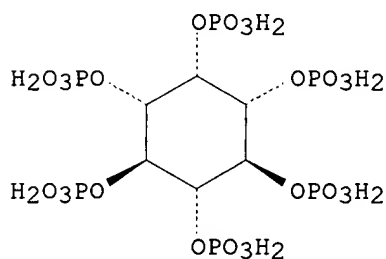
IT 3615-82-5, Phytin

RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(dietary **microbial** phytase additive effects on growth and phosphorus utilization in *Carassius auratus gibelio* goldfish)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

IT Goldfish (*Carassias auratus gibelio*)

Nutrition, animal

(dietary **microbial** phytase additive effects on growth and phosphorus utilization in *Carassius auratus gibelio* goldfish)

IT Lipids, biological studies

Proteins, general, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(dietary **microbial** phytase additive effects on growth and

phosphorus utilization in *Carassius auratus gibelio* goldfish)  
 IT 7723-14-0, Phosphorus, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); FFD  
 (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (dietary **microbial** phytase additive effects on growth and  
 phosphorus utilization in *Carassius auratus gibelio* goldfish)  
 IT 3615-82-5, Phytin 37341-58-5, Phytase  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (dietary **microbial** phytase additive effects on growth and  
 phosphorus utilization in *Carassius auratus gibelio* goldfish)

L19 ANSWER 7 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:444569 CAPLUS  
 DOCUMENT NUMBER: 133:266003  
 TITLE: Response of broiler chickens to **microbial**  
 phytase supplementation as influenced by dietary  
 phytic acid and non-phytate **phosphorous**  
 levels. II. Effects on apparent metabolizable energy,  
 nutrient digestibility and nutrient retention  
 AUTHOR(S): Ravindran, V.; Cabahug, S.; Ravindran, G.; Selle, P.  
 H.; Bryden, W. L.  
 CORPORATE SOURCE: Department of Animal Science, University of Sydney,  
 Camden, Australia  
 SOURCE: British Poultry Science (2000), 41(2), 193-200  
 CODEN: BPOSA4; ISSN: 0007-1668  
 PUBLISHER: Carfax Publishing  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

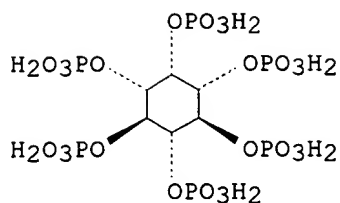
AB 1. Male broilers (n=900) were fed on wheat-sorghum-soybean meal based  
 diets contg. 3 concns. of phytic acid (10.4, 13.2 and 15.7 g/kg; equiv. to  
 2.9, 3.7 and 4.4 g/kg phytate P), 2 concns. of non-phytate (or available)  
 phosphorus (2.3 and 4.5 g/kg) and 3 concns. of **microbial** phytase  
 (0, 400 and 800 FTU/kg) from day 7 to 25 post-hatch. The dietary concns.  
 of phytic acid were manipulated by the inclusion of rice pollards. All  
 diets contained celite (20 g/kg) as a source of acid-insol. ash. 2. The  
 apparent metabolisable energy (AME) concns. of the diets were detd. using  
 a classical total collection procedure during the 3rd week of the trial.  
 On d 25, digesta from the terminal ileum were collected and analyzed for  
 phosphorus, nitrogen and amino acids. Nutrient digestibilities were  
 calcd. using acid-insol. ash as the indigestible marker. 2. Ileal  
 digestibilities of nitrogen and essential amino acids were neg. influenced  
 by increasing dietary levels of phytic acid but these neg. effects were  
 overcome by the addn. of phytase. 3. Supplemental phytase increased AME,  
 ileal digestibilities of phosphorus, nitrogen and amino acids and the  
 retention of dry matter, phosphorus and nitrogen in broilers. There were  
 no differences in the phytase responses between addns. of 400 and 800  
 FTU/kg. 4. The responses in all variables, except AME, were greater in  
 low non-phytate phosphorus diets. 5. In the case of AME, the response to  
 added phytase was greater in adequate non-phytate phosphorus diets.  
 Supplemental phytase increased AME values from 13.36 to 13.54 MJ/kg dry  
 matter in low non-phytate phosphorus diets and from 12.66 to 13.38 MJ/kg  
 dry matter in adequate non-phytate phosphorus diets.

IT 83-86-3, Phytic acid  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); BIOL (Biological study)  
 (response of broiler chickens to **microbial** phytase  
 supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



- IT Chicken (*Gallus domesticus*)  
 Dietary energy  
 Digestibility  
 Feeding experiment  
 Nutrients  
 Nutrition, animal  
 (response of broiler chickens to **microbial** phytase  
 supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)
- IT Amino acids, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (response of broiler chickens to **microbial** phytase  
 supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)
- IT **83-86-3**, Phytic acid 37341-58-5, Phytase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological  
 study, unclassified); BIOL (Biological study)  
 (response of broiler chickens to **microbial** phytase  
 supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)
- IT 56-87-1, L-Lysine, biological studies 61-90-5, Leu, biological studies  
 63-91-2, L-Phenylalanine, biological studies 71-00-1, L-Histidine,  
 biological studies 72-18-4, L-Valine, biological studies 72-19-5,  
 L-Threonine, biological studies 73-32-5, L-Isoleucine, biological  
 studies 74-79-3, L-Arginine, biological studies 7723-14-0, Phosphorus,  
 biological studies 7727-37-9, Nitrogen, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
 (Biological study); PROC (Process)  
 (response of broiler chickens to **microbial** phytase  
 supplementation as influenced by dietary phytic acid and non-phytate P  
 levels)
- REFERENCE COUNT: 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 8 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:90208 CAPLUS

DOCUMENT NUMBER: 133:30143

TITLE: Response of broiler chickens to **microbial**  
 phytase supplementation as influenced by dietary  
 phytic acid and non-phytate **phosphorus**  
 contents. I. Effects on bird performance and toe ash  
 Cabahug, S.; Ravindran, V.; Selle, P. H.; Bryden, W.  
 L.

CORPORATE SOURCE: University of Sydney, Camden, Australia  
 SOURCE: British Poultry Science (1999), 40(5), 660-666  
 CODEN: BPOSA4; ISSN: 0007-1668

PUBLISHER: Carfax Publishing

DOCUMENT TYPE: Journal

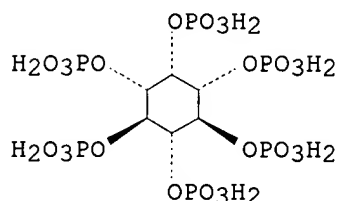
LANGUAGE: English

AB Seven-day old male broiler chickens (n=900) were fed wheat/sorghum/soybean  
 meal-based diets contg. 3 levels of phytic acid (10.4, 13.2, and 15.7

g/kg; equiv. to 2.9, 3.7, and 4.4 g phytate P/kg), 2 levels of non-phytate P (2.3 and 4.5 g/kg), and 3 levels of **microbial** phytase (Natuphos 5000 L; 0, 400, and 800 FTU/kg) in a 19-day trial. The dietary phytic acid contents were manipulated by the inclusion of rice pollard (bran). Each diet was fed to 5 pens (10 birds/pen) from 7 to 25 days of age. Records of body wt., feed intake, and mortality were kept. On day 25, toe samples were taken from all surviving birds for toe (bone) ash measurements. Increasing the dietary phytic acid levels neg. influenced the body wt. gain, feed intake, and feed/gain ratio. These adverse effects were partially overcome by the addn. of **microbial** phytase. Supplemental phytase improved body wt. gains and feed efficiency of broilers, but the magnitude of the responses was greater with low non-phytate P diets, resulting in significant non-phytate phosphorus .times. phytase interactions. The toe ash contents were improved by phytase addn., but the response was greater with the highest concn. of phytic acid, resulting in a significant phytic acid .times. phytase interaction. Responses were also greater with low non-phytate P diets as indicated by significant non-phytate phosphorus .times. phytase interaction. There was very little difference in the responses to phytase addns. at 400 and 800 FTU/kg. The performance responses to added phytase in birds fed adequate non-phytate P diets provide evidence for the influence of the enzyme on animal performance independent of its effect on P availability.

IT **83-86-3**, Phytic acid  
 RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)  
 RN **83-86-3** CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Chicken (Gallus domesticus)  
 Digestibility  
 Feeding experiment  
 Nutrition, animal  
 (dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)  
 IT **83-86-3**, Phytic acid 7723-14-0, Phosphorus, biological studies  
 RL: BPR (Biological process); BSU (Biological study, unclassified); FFD (Food or feed use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)  
 IT 37341-58-5, Natuphos  
 RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
 (dietary **microbial** phytase supplement and feed phytic acid and non-phytate P content effects on growth performance and bone minerals in broiler chickens)

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS



L19 ANSWER 9 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1999:15185 CAPLUS

DOCUMENT NUMBER: 130:65765

TITLE: Influence of **microbial** and native wheat phytase on the **phosphorus** utilization in broilers

AUTHOR(S): Oloffs, Kerstin; Dolbusin, A.; Jeroch, H.

CORPORATE SOURCE: Inst. Tierernaehrung Vorratshaltung, Martin-Luther-Univ., Halle/Saale, D-06108, Germany

SOURCE: Archiv fuer Gefluegelkunde (1998), 62(6), 260-263

CODEN: AGEFAB; ISSN: 0003-9098

PUBLISHER: Verlag Eugen Ulmer GmbH & Co.

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The influence of native and **microbial** wheat phytase was tested on the P utilization of broilers (31-35 days old) by giving them feed mixts. (97.5% wheat) without or with varying dosages of native wheat phytase or **microbial** phytase (ZY 98). All other groups showed an increase in P utilization, which is a clear proof of the effect of native as well as of **microbial** phytase on the P utilization of the broiler. The effectiveness of the **microbial** phytase was higher than that of the native one.

IT **83-86-3**

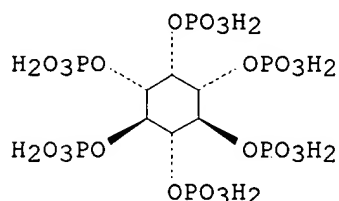
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(**microbial** and native wheat phytase effect on the P utilization in broilers)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Feed additives  
Feeding experiment  
Nutrition, animal  
Poultry

(**microbial** and native wheat phytase effect on the P utilization in broilers)

IT 37341-58-5, Phytase

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(**microbial** and native wheat phytase effect on the P utilization in broilers)

IT **83-86-3** 7723-14-0, Phosphorus, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

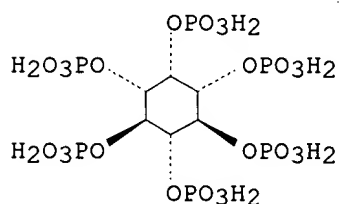
(**microbial** and native wheat phytase effect on the P utilization in broilers)

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L19 ANSWER 10 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1998:346467 CAPLUS  
DOCUMENT NUMBER: 129:81048  
TITLE: Phytate **phosphorus** hydrolysis by  
**microbial** phytase in corn-soybean meal diets  
for pigs  
AUTHOR(S): Liu, Jiazhong  
CORPORATE SOURCE: Univ. of Missouri, Columbia, MO, USA  
SOURCE: (1996) 176 pp. Avail.: UMI, Order No. DA9821350  
From: Diss. Abstr. Int., B 1998, 59(1), 5  
DOCUMENT TYPE: Dissertation  
LANGUAGE: English  
AB Unavailable  
IT **83-86-3**  
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(phytate phosphorus hydrolysis by **microbial** phytase in  
corn-soybean meal diets for pigs)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Nutrition, animal  
Swine  
(phytate phosphorus hydrolysis by **microbial** phytase in  
corn-soybean meal diets for pigs)  
IT **83-86-3** 7723-14-0, Phosphorus, biological studies 37341-58-5,  
Phytase  
RL: FFD (Food or feed use); BIOL (Biological study); USES (Uses)  
(phytate phosphorus hydrolysis by **microbial** phytase in  
corn-soybean meal diets for pigs)

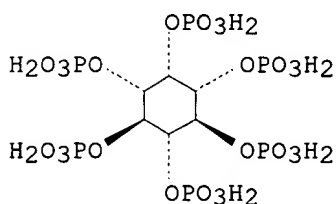
L19 ANSWER 11 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1997:810239 CAPLUS  
DOCUMENT NUMBER: 128:47653  
TITLE: Effect of supplementary **microbial** phytase to  
a maize-soya diet on the availability of calcium,  
**phosphorus**, magnesium, and zinc. In vitro  
dialyzability in comparison with apparent absorption  
in growing rats  
AUTHOR(S): Rimbach, G.; Walter, A.; Most, E.; Pallauf, Josef  
CORPORATE SOURCE: Institute Animal Nutrition Nutrition Physiology,  
Justus-Liebig-University, Giessen, D-35390, Germany  
SOURCE: Journal of Animal Physiology and Animal Nutrition  
(1997), 77(4/5), 198-206  
CODEN: JAPNEF; ISSN: 0931-2439  
PUBLISHER: Blackwell Wissenschafts-Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB The effect of **microbial** phytase (0, 250, 500, 1000, 2000 PU/kg  
diet) to a maize-soya diet (5.0 g Ca, 3.0 g P, 1.2 g Mg, 24 mg Zn per kg  
diet) was studied on the availability of Ca, P, Mg, and Zn in vitro and in  
vivo. In vitro availability tests were carried out after simulated peptic

and pancreatic digestion using an equil. dialysis system. Absorption of Ca, P, Mg, and Zn was measured in growing albino rats. The supplementation of **microbial** phytase improved Ca, P, Mg, and Zn dialysability in vitro. Supplementation of **microbial** phytase resulted in a dose-dependent increase of apparent P and Zn absorption, but the response of **microbial** phytase to the availability of P and Zn was higher in vitro than in vivo.

IT **83-86-3**, Phytic acid  
 RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
 (effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)  
 RN **83-86-3** CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



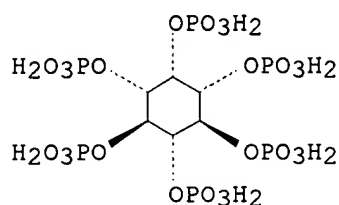
IT Corn  
 Diet  
 Soybean (Glycine max)  
 (effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)  
 IT 37341-58-5, Phytase  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
 (effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)  
 IT **83-86-3**, Phytic acid 7439-95-4, Magnesium, biological studies 7440-66-6, Zinc, biological studies 7440-70-2, Calcium, biological studies 7723-14-0, Phosphorus, biological studies  
 RL: BOC (Biological occurrence); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence); PROC (Process)  
 (effect of supplementary **microbial** phytase to a maize-soya diet on the availability of Ca, P, Mg, and Zn)

L19 ANSWER 12 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:162319 CAPLUS  
 DOCUMENT NUMBER: 120:162319  
 TITLE: Supplemental **microbial** phytase improves utilization of phytate **phosphorus** and other minerals by young pigs  
 AUTHOR(S): Lei, Xingen  
 CORPORATE SOURCE: Michigan State Univ., East Lansing, MI, USA  
 SOURCE: (1992) 179 pp. Avail.: Univ. Microfilms Int., Order No. DA9326732  
 From: Diss. Abstr. Int. B 1993, 54(5), 2289  
 DOCUMENT TYPE: Dissertation  
 LANGUAGE: English  
 AB Unavailable  
 IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)

(utilization of phosphorus of, by pigs, dietary phytase improvement of)  
RN 83-86-3 CAPLUS  
CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Swine  
(feeding expt. on, with phytase, phosphorus and other minerals utilization improvement by)  
IT Mineral elements  
RL: PROC (Process)  
(utilization of, by pigs, dietary phytase improvement of)  
IT Feeding experiment  
(with phytase, on pigs, phosphorus and other minerals utilization improvement by)  
IT 37341-58-5, Phytase  
RL: BIOL (Biological study)  
(feeding expt. with, on pigs, phosphorus and other minerals utilization improvement by)  
IT **83-86-3**, Phytic acid  
RL: BIOL (Biological study)  
(utilization of phosphorus of, by pigs, dietary phytase improvement of)  
IT 7723-14-0, Phosphorus, biological studies  
RL: BIOL (Biological study)  
(utilization of phytate, by pigs, dietary phytase improvement of)

L19 ANSWER 13 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:53507 CAPLUS

DOCUMENT NUMBER: 120:53507

TITLE: Supplementing corn-soybean meal diets with  
**microbial** phytase maximizes phytate

**phosphorus** utilization by weanling pigs

AUTHOR(S): Lei, X. G.; Ku, P. K.; Miller, E. R.; Yokoyama, M. T.;  
Ullrey, D. E.

CORPORATE SOURCE: Dep. Anim. Sci., Michigan State Univ., East Lansing,  
MI, 48824, USA

SOURCE: Journal of Animal Science (Savoy, IL, United States)  
(1993), 71(12), 3368-75

CODEN: JANSAG; ISSN: 0021-8812

DOCUMENT TYPE: Journal

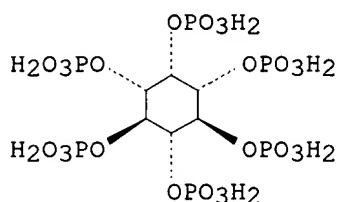
LANGUAGE: English

AB Two expts. were conducted with crossbred weanling pigs to det. the optimal dietary supplement of *Aspergillus niger* phytase activity to a low-P, corn-soybean meal basal diet (BD). In Exp. 1, 50 pigs (7.61  $\pm$  .56 kg BW) received the BD supplemented with 750, 1050, 1250, or 1350 phytase units (PU)/g, or 0.21% P as mono-dibasic calcium phosphate (MDCaP) for 4 wk. In Exp. 2, 12 pigs (6.39  $\pm$  .74 kg BW) were individually housed in metab. cages and received BD, BD plus the optimal phytase activity (1200 PU/g), or BD plus 0.21% P as MDCaP for 2 wk. In Exp. 1 addns. of phytase > 1050 PU/g of BD did not improve ADG, ADFI, gain/feed, or plasma AP activity. Quadratic relationships between dietary phytase activity and these measures were found and their stationary points were at approx. 1200 PU/g of BD. Estd. max. responses of these measures in pigs fed phytase

were .gtoreq. 90% compared with MDCaP. Pigs fed 1250 PU/g of BD maintained normal plasma P and Ca concns. In Exp. 2, pigs that received 1200 PU/g of BD utilized dietary P more effectively than pigs fed the BD or the BD plus MDCaP. Although they consumed 44% less P per day, these pigs retained only 7% less P than pigs that received MDCaP. One thousand units of phytase activity supported retention of 1.1 mg of P from the BD, and this level of phytase supplementation was equiv. in effect to 0.91 mg of P from MDCaP. Supplements of *A. niger* phytase at 1200 PU/g of BD for weanling pigs seemed to maximize utilization of phytate-P and obviate the need for almost all of an inorg. P addn.

IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)  
 (pigs utilization of phosphorus of, dietary phytase improvement of)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Blood plasma  
 (phosphorus utilization indexes of, of pigs, dietary phytase improvement of)  
 IT Swine  
 (phytate phosphorus utilization by, dietary phytase improvement of)  
 IT 7440-70-2, Calcium, biological studies  
 RL: BIOL (Biological study)  
 (balance of, in pigs, dietary phytase effect on)  
 IT 7440-66-6, Zinc, biological studies  
 RL: BIOL (Biological study)  
 (of blood plasma of pigs, dietary phytase effect on)  
 IT 7723-14-0, Phosphorus, biological studies  
 RL: BIOL (Biological study)  
 (of phytate, pigs utilization of, dietary phytase improvement of)  
 IT 37341-58-5, Phytase  
 RL: BIOL (Biological study)  
 (phytate phosphorus utilization by pigs improvement by dietary)  
 IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)  
 (pigs utilization of phosphorus of, dietary phytase improvement of)

L19 ANSWER 14 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1994:53506 CAPLUS

DOCUMENT NUMBER: 120:53506

TITLE: Supplementing corn-soybean meal diets with **microbial** phytase linearly improves phytate **phosphorus** utilization by weanling pigs

AUTHOR(S): Lei, X. G.; Ku, P. K.; Miller, E. R.; Yokoyama, M. T.  
 CORPORATE SOURCE: Dep. Anim. Sci., Michigan State Univ., East Lansing, MI, 48824, USA

SOURCE: Journal of Animal Science (Savoy, IL, United States) (1993), 71(12), 3359-67

CODEN: JANSAG; ISSN: 0021-8812

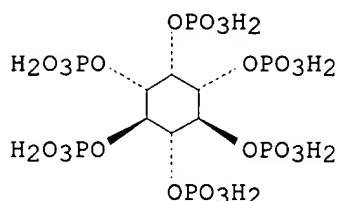
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Two expts. were conducted with weanling pigs to det. the effectiveness of a dietary supplement of *Aspergillus niger* phytase in improving the availability of phytate-P in corn-soybean meal diets without supplemental inorg. P. Expt. 1 consisted of two P and Ca balance trials and two feeding trials. Twelve pigs (8.18  $\pm$  .44 kg BW) were housed individually in stainless steel metab. cages. Six pigs received 750 phytase units (PU)/g of basal diet and the other six pigs received the basal diet without supplemental phytase as control. In Exp. 2, 96 pigs (8.81  $\pm$  .75 kg BW) were allotted to 16 partially slotted floor pens and their basal diets were supplemented with either 0, 250, 500, or 750 PU/g for 4 wk. Individual pig wts. and pen feed consumption were measured weekly. Blood samples were taken from all pigs at the end of each trial in Exp. 1 and from three pigs per pen weekly in Exp. 2 to measure serum (plasma) inorg. P (P) and Ca concns. and alk. phosphatase (AP) activities. The results of Exp. 1 indicated that dietary phytase increased P retention by 50% and decreased fecal P excretion by 42%. Pigs that received dietary phytase had serum P and Ca concns. and serum AP activities that were nearly normal, whereas control pigs had values indicative of a moderate P deficiency. Favorable effects of phytase disappeared when the phytase was removed from the diet. The results of Exp. 2 indicated a linear increase in plasma P, ADG, and ADFI with increased dietary phytase activity. Plasma AP activity decreased linearly with increased dietary phytase activity up to 500 PU/g of diet. Gain/feed and plasma Ca concn. seemed to be unaffected by dietary phytase activity. In conclusion, supplements of *Aspergillus niger* phytase up to 750 PU/g of feed in corn-soybean meal diets of weanling pigs resulted in a linear improvement in utilization of phytate-P.

IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)  
 (pigs utilization of phosphorus of, dietary phytase improvement of)  
 RN 83-86-3 CAPLUS  
 CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Blood serum  
 (phosphorus utilization indexes of, of pigs, dietary phytase improvement of)  
 IT Swine  
 (phytate phosphorus utilization by, dietary phytase improvement of)  
 IT 7440-70-2, Calcium, biological studies 9001-78-9, Alk. phosphatase  
 RL: BIOL (Biological study)  
 (of blood serum of pigs, dietary phytase effect on)  
 IT 37341-58-5, Phytase  
 RL: BIOL (Biological study)  
 (phytate phosphorus utilization by pigs improvement by dietary)  
 IT **83-86-3**, Phytic acid  
 RL: BIOL (Biological study)  
 (pigs utilization of phosphorus of, dietary phytase improvement of)  
 IT 7723-14-0, Phosphorus, biological studies  
 RL: BIOL (Biological study)  
 (utilization of phytate, by pigs, dietary phytase improvement of)

ACCESSION NUMBER: 1992:447144 CAPLUS

DOCUMENT NUMBER: 117:47144

TITLE: Comparative effects of **microbial** phytase and inorganic **phosphorus** on performance and on retentions of **phosphorus**, calcium, and crude ash in broilers

AUTHOR(S): Schoener, F. J.; Hoppe, P. P.; Schwarz, G.

CORPORATE SOURCE: Tierernaehrungsstn., BASF A.-G., Offenbach an der Queich, W-6745, Germany

SOURCE: Journal of Animal Physiology and Animal Nutrition (1991), 66(5), 248-55

CODEN: JAPNEF; ISSN: 0931-2439

DOCUMENT TYPE: Journal

LANGUAGE: German

AB The effects of graded feed supplements of **microbial** phytase (I), inorg. P, and a combination of Ca and P on broiler performance, whole-body retention of ash, Ca and P and on phallanx ash were studied. A maize-soybean meal ration contg. 2.3, 1, 4.5, and 6 g/kg I, P (from  $\text{CaH}_4(\text{PO}_4)_2$ ), total P, and Ca, resp., was used. Supplements of 200-800 IU/kg of I, 0.4-1.2 g/kg of P, and 0.4-1.2 g/kg of Ca + 0.4-1.2 g/kg of P improved wt. gains (by increasing feed intakes but not conversions) and linearly increased ash, Ca, and P retention. Similar supplements of Ca alone had no effect. Linear regression anal. of I and P addns. and P retention showed 700 IU of I equiv. to 1.0 g of P. Phallanx ash also linearly correlated with P retention, indicating it would be a useful indicator of the latter.

IT **83-86-3**, Phytic acid

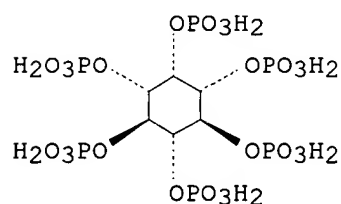
RL: BIOL (Biological study)

(chicken utilization of phosphorus of, phytase supplementation improvement of retention and)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Chicken

(feeding expt. on broiler chicks, with phytase and phosphorus, phosphorus retention and utilization improvement in relation to)

IT Feeding experiment

(with phytase and phosphorus, on broiler chicks, phosphorus retention and utilization improvement in relation to)

IT 7440-70-2, Calcium, biological studies

RL: BIOL (Biological study)

(chicken utilization of feed, phytase and phosphorus supplementation improvement of)

IT **83-86-3**, Phytic acid

RL: BIOL (Biological study)

(chicken utilization of phosphorus of, phytase supplementation improvement of retention and)

IT 7723-14-0, Phosphorus, biological studies

RL: BIOL (Biological study)

(chicken utilization of phytate, in feed, phytase supplementation

improvement of retention and)  
IT 37341-58-5, Phytase  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(feeding expt. with, on broiler chicks, phosphorus retention and utilization improvement in relation to)

L19 ANSWER 16 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1990:570809 CAPLUS

DOCUMENT NUMBER: 113:170809

TITLE: Improvement of **phosphorus** availability by **microbial** phytase in broilers and pigs

AUTHOR(S): Simons, P. C. M.; Versteegh, H. A. J.; Jongbloed, A. W.; Kemme, P. A.; Slump, P.; Bos, K. D.; Wolters, M. G. E.; Beudeker, R. F.; Verschoor, G. J.

CORPORATE SOURCE: Spelderholt Cent. Poult. Res. Inf. Serv., Beekbergen, 7361 DA, Neth.

SOURCE: British Journal of Nutrition (1990), 64(2), 525-40  
CODEN: BJNUAV; ISSN: 0007-1145

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Techniques were developed to produce **microbial** phytase for addn. to diets for simple-stomached animals, with the aim to improve P availability from phytate-P in plant sources. The activity of the crude **microbial** phytase showed pH optima at pH 5.5 and 2.5. The enzyme degraded phytate in vitro in soybean meal, corn, and a liq. compd. feed for pigs. When **microbial** phytase was added to low-P diets for broilers, the availability of P increased >60% and the amt. of P in the droppings decreased by 50%. The growth rate and feed conversion ratio on the low-P diets contg. **microbial** phytase were comparable to or even better than those obtained on control diets. Addn. of **microbial** phytase to diets for growing pigs increased the apparent absorbability of P by 24%. The amt. of P in the feces was 35% lower.

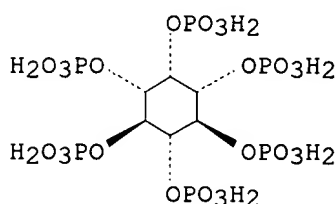
IT 83-86-3

RL: BIOL (Biological study)  
(phosphorus availability from, to broilers and pigs, phytase increase of)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT Digestibility  
(of phytate phosphorus, by chicken and pigs, phytase treatment effect on)

IT Corn  
Soybean meal  
(phytate phosphorus availability to chickens and pigs from phytase treatment of)

IT Chicken  
Swine  
(phytate phosphorus availability to, from phytase-treated feed)

IT Feeding experiment



(with feeds treated with **microbial** phytase, on chicken and pigs)

IT Feed  
(conc., phytate phosphorus availability to chickens and pigs from phytase treatment of)

IT 7723-14-0, Phosphorus, biological studies  
RL: BIOL (Biological study)  
(availability of, from phytate to broilers and pigs, **microbial** phytase increase of)

IT 37341-58-5, Phytase  
RL: BIOL (Biological study)  
(phosphorus availability from feed phytate increase by)

IT **83-86-3**  
RL: BIOL (Biological study)  
(phosphorus availability from, to broilers and pigs, phytase increase of)

L19 ANSWER 17 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1987:533003 CAPLUS

DOCUMENT NUMBER: 107:133003

TITLE: Liquid **bactericide** for foods and food processing machines or utensils, employing a synergistic mixture of ethyl alcohol, an organic acid and **phosphoric** acid

INVENTOR(S): Ueno, Ryuzo; Kanayama, Tatsuo; Fujita, Yatsuka; Yamamoto, Munemitsu

PATENT ASSIGNEE(S): Kabushiki Kaisha Ueno Seiyaku Oyo Kenkyujo, Japan

SOURCE: U.S., 17 pp. Cont.-in-part of U. S. Ser. No. 305,845, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4647458	A	19870303	US 1984-581366	19840214
PRIORITY APPLN. INFO.:			US 1981-305845	19810925

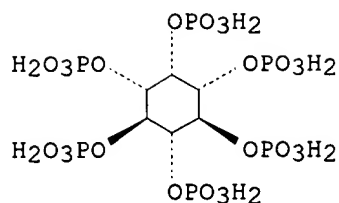
AB A liq. **bactericide** for foods and food processing machines or utensils comprises as active ingredients 98.0-2.3% (wt./vol.) of EtOH, 1.0-96.7% of an org. acid selected from the group consisting of lactic acid, acetic acid, citric acid, tartaric acid, gluconic acid, malic acid, ascorbic acid and phytic acid, and 1.0-96.7% (wt./vol.) of H3PO4, said **bactericide** being capable of sterilizing within 30 s when used in an aq. soln., such that the concn. of active ingredients in soln. consists of 14-1% (wt./vol.) EtOH, 13.0-0.3% org. acid, and 0.7-0.03% H3PO4. A kamaboko-like crab cake product which is highly susceptible to coliforms was effectively sterilized by concns. of EtOH, lactic acid, and H3PO4 of .gtoreq.1.85, 3.085, and 0.065% in the aq. soln.

IT **83-86-3**, Phytic acid  
RL: BIOL (Biological study)  
(**bactericides** contg. ethanol and phosphoric acid and, for food industry)

RN 83-86-3 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



- IT Carboxylic acids, biological studies  
 RL: BIOL (Biological study)  
 (**bactericides** contg. ethanol and phosphoric acid and, for food industry)
- IT Cooking utensils  
 Food  
 (**bactericides** for, ethanol and carboxylic acids and phosphoric acid in)
- IT **Bactericides**, Disinfectants, and Antiseptics  
 (ethanol and carboxylic acids and phosphoric acid in, for food industry)
- IT Apparatus  
 (food-processing, **bactericides** for, ethanol and carboxylic acids and phosphoric acid in)
- IT Escherichia coli  
 Lactobacillus vulgaricus  
 (inhibition of, on food and food processing equipment, with **bactericides** contg. ethanol and lactic and phosphoric acids)
- IT Food  
 (industry, **bactericides** for, ethanol and carboxylic acids and phosphoric acid in)
- IT **Bacteria**  
 (lactic acid, inhibition of, on food and food processing equipment, with **bactericides** contg. ethanol and lactic and phosphoric acids)
- IT 64-17-5, Ethanol, biological studies  
 RL: BIOL (Biological study)  
 (**bactericides** contg. carboxylic acids and phosphoric acid and, for food industry)
- IT 7664-38-2, Phosphoric acid, biological studies  
 RL: BIOL (Biological study)  
 (**bactericides** contg. ethanol and carboxylic acids and, for food industry)
- IT 50-21-5, Lactic acid, biological studies 50-81-7, Ascorbic acid, biological studies 64-19-7, Acetic acid, biological studies 77-92-9, Citric acid, biological studies **83-86-3**, Phytic acid 87-69-4, Tartaric acid, biological studies 526-95-4, Gluconic acid 6915-15-7, Malic acid  
 RL: BIOL (Biological study)  
 (**bactericides** contg. ethanol and phosphoric acid and, for food industry)
- L19 ANSWER 18 OF 22 CAPLUS COPYRIGHT 2003 ACS  
 ACCESSION NUMBER: 1983:609936 CAPLUS  
 DOCUMENT NUMBER: 99:209936  
 TITLE: Role of an ectomycorrhiza "Pisolithus tinctorius-Pinus caribaea" and a rhizosphere **bacterium** in the mobilization of **phosphorus** from insoluble mineral or organic phosphates  
 AUTHOR(S): Chakly, M.; Berthelin, J.  
 CORPORATE SOURCE: Cent. Pedol. Biol., CNRS, Vandoeuvre-les-Nancy, 54501, Fr.  
 SOURCE: Colloques - Institut National de la Recherche

Agronomie (1982), 13 (Mycorrhizes, Partie Integr.  
Plante: Biol. Perspect. Util.), 215-20  
CODEN: COLIEZ; ISSN: 0293-1915

DOCUMENT TYPE: Journal  
LANGUAGE: French

AB Adding 1.permill. phytin to ferralitic soil from Guyana stimulated the growth of coralloid ectomycorrhizas of *P. tinctorius* on *P. caribaea* seedlings more than 1.permill.  $\text{Ca}_3(\text{PO}_4)_2$  stimulated the development of dichotomous mycorrhizas. The mycorrhizas stimulated pine growth on the phosphate more than on phytin. However, inoculation with the mycorrhiza plus a **bacterium** isolated from the pine rhizosphere and solubilizing di- and tri-Ca phosphates in vitro, stimulated the growth on phytin more than on the phosphate. For both P sources, the combined inoculation was more effective than either microorganism alone in the stimulation of pine growth and P uptake and translocation to the aerial parts. The effectiveness of the combined inoculation was synergistic.

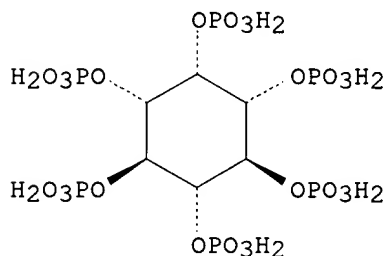
IT 3615-82-5

RL: BIOL (Biological study)  
(pine growth on phosphorus from, ectomycorrhiza plus  
phosphate-solubilizing **bacteria** stimulation of)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

IT Plant growth and development  
(by pine, ectomycorrhiza plus phosphate-solubilizing **bacteria**  
effect on)

IT Ecology  
(ectomycorrhiza-phosphate-solubilizing-**bacteria** community,  
pine phosphorus nutrition and growth stimulation by)

IT Root absorption  
Translocation  
(of phosphorus, by pine, ectomycorrhiza plus phosphate-solubilizing  
**bacteria** effect on)

IT *Pisolithus tinctorius*  
(phosphate-solubilizing **bacteria** plus effect on phosphorus  
nutrition and growth of)

IT Soils  
(phosphorus of, availability of, to pine, ectomycorrhiza plus  
phosphate-solubilizing **bacteria** effect on)

IT Plant nutrition  
 (phosphorus, by pine, ectomycorrhiza plus phosphate-solubilizing **bacteria** effect on)

IT Mycorrhiza  
 (ecto-, pine, phosphate-solubilizing **bacteria** plus effect on phosphorus nutrition and growth of)

IT Soils  
 (rhizospheric, phosphate-solubilizing **bacteria** of, pine growth and phosphorus nutrition response to ectomycorrhiza plus)

IT **Bacteria**  
 (soil, phosphate-solubilizing, ectomycorrhiza effect on pine growth and phosphorus nutrition in relation to)

IT Pine  
 (P. caribaea, phosphorus nutrition and growth of, ectomycorrhiza plus phosphate-solubilizing **bacteria** effect on)

IT **3615-82-5** 7758-87-4  
 RL: BIOL (Biological study)  
 (pine growth on phosphorus from, ectomycorrhiza plus phosphate-solubilizing **bacteria** stimulation of)

IT 7723-14-0, biological studies  
 RL: BIOL (Biological study)  
 (soil, availability of, to pine, ectomycorrhiza plus phosphate-solubilizing **bacteria** stimulation of)

L19 ANSWER 19 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1977:516858 CAPLUS

DOCUMENT NUMBER: 87:116858

TITLE: Efficiency of phosphate mobilizing **bacteria** on different **phosphorus** substrates in clay loamy soils

AUTHOR(S): Mahmoud, S. A. Z.; Abdel-Hafez, A. M.; El-Sawy, M.; Hanafy, Ehsan A.

CORPORATE SOURCE: Fac. Agric., Ain Shams Univ., Cairo, Egypt

SOURCE: Egyptian Journal of Soil Science (1976), 16(1), 9-20  
 CODEN: EJSSAF; ISSN: 0302-6701

DOCUMENT TYPE: Journal

LANGUAGE: English

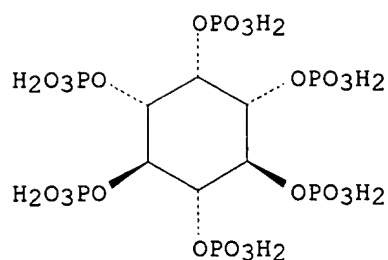
AB The most efficient 5 strains in releasing soluble and (or) available P from different org. and inorg. insoluble phosphate substrates, isolated from the rhizosphere of wheat and broad bean were selected for this investigation. The efficiency of the most efficient 5 strains in hydrolyzing all P substrates namely, inorg. phosphate, RNA, phytin [ **3615-82-5**] and lecithin in sterile and nonsterile soil was studied. The selected isolates varied in their efficiency to solubilize inorg. insoluble phosphate, RNA, phytin or lecithin. Values of soluble and (or) available P released from tested P substrates in nonsterile soil were generally higher than those released in sterile soil indicating that inoculation was more effective in the presence of mixed normal soil **microbial** flora than in their absence.

IT **3615-82-5**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (decompn. of, by soil **bacteria**)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
 (CA INDEX NAME)

Relative stereochemistry.



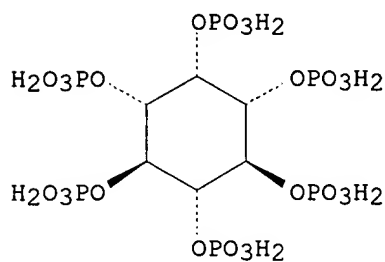
●x Ca

●x Mg

- IT Lecithins, biological studies  
Phosphates, biological studies  
Ribonucleic acids  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by soil **bacteria**)
- IT Soils  
(clay loam, phosphorus substrates **microbial** degrdn. in)
- IT **Bacteria**  
(soil, phosphate-mobilizing, substrate degrdn. by)
- IT **3615-82-5**  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by soil **bacteria**)
- L19 ANSWER 20 OF 22 CAPLUS COPYRIGHT 2003 ACS  
ACCESSION NUMBER: 1977:498606 CAPLUS  
DOCUMENT NUMBER: 87:98606  
TITLE: Efficiency of phosphate mobilizing **bacteria**  
on different **phosphorus** substrates in liquid  
culture media  
AUTHOR(S): Mahmoud, S. A. Z.; Abdel-Hafez, A. M.; El-Sawy, M.;  
Hanafy, Ehsan A.  
CORPORATE SOURCE: Fac. Agric., Ain Shams Univ., Cairo, Egypt  
SOURCE: Egyptian Journal of Botany (1975), 18(1-3), 101-14  
CODEN: EGJBAY; ISSN: 0375-9237  
DOCUMENT TYPE: Journal  
LANGUAGE: English
- AB The efficiency of some selected strains of phosphate-dissolving  
**bacteria** isolated from the rhizosphere of broad bean and wheat, on  
decomposing different forms of inorg. and org. P compds. namely, inorg.  
insol. phosphate, RNA, phytin, and lecithin was detd. using the liq.  
culture method. Quant. weekly detn. of water-sol. and available P showed  
that selected organisms differed in decomposing inorg. insol. phosphate,  
RNA, phytin and lecithin regardless of the source from which they had been  
isolated. Values of available P released in all cases were generally  
higher than those of water-sol. P, and this confirmed the efficiency of  
the method of S. R. Olsen, et al (1954) for extg. available P released  
from inorg. or org. phosphate substrates.
- IT **3615-82-5**  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL  
(Biological study); PROC (Process)  
(metab. of, by phosphate-dissolving **bacteria**)
- RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

IT Phosphates, biological studies  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, by **bacteria**)

IT Lecithins, biological studies  
Ribonucleic acids  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, by phosphate-dissolving **bacteria**)

IT **Bacteria**  
(phosphate-solubilizing, phosphorus compds. degrdn. by)

IT 7758-87-4  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, by **bacteria**)

IT **3615-82-5**  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, by phosphate-dissolving **bacteria**)

L19 ANSWER 21 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1974:532633 CAPLUS

DOCUMENT NUMBER: 81:132633

TITLE: **Phosphoribulokinase** and regulation of the size of a metabolic pool of ribulose 1,5-diphosphate in hydrogen **bacteria**

AUTHOR(S): Romanova, A. K.; Vedenina, I. Ya.

CORPORATE SOURCE: Inst. Mikrobiol., Moscow, USSR

SOURCE: Mikrobiologiya (1974), 43(2), 369-70

CODEN: MIKBA5; ISSN: 0026-3656

DOCUMENT TYPE: Journal

LANGUAGE: Russian

AB In crude exts. of H **bacteria**, the activity of phosphoribulkinase was detd. as the accumulation of alkali hydrolyzed P from ribulose 1,5-diphosphate (I). The activity was detd. in the presence of ribose 5-phosphate and was obsd. only in the absence of O. On the other hand, in exts. from S **bacteria**, Chlorella, and pea leaves, the

accumulation of I was obsd. under aerobic conditions. O regulates the metabolic pool of I in H **bacteria**.

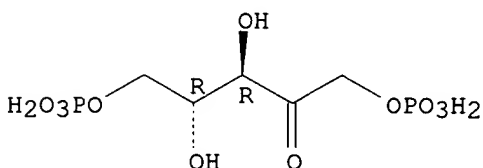
IT 2002-28-0

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, in hydrogen **bacteria**)

RN 2002-28-0 CAPLUS

CN erythro-2-Pentulose, 1,5-bis(dihydrogen phosphate) (9CI) (CA INDEX NAME)

Relative stereochemistry.



IT **Bacteria**

(hydrogen, phosphoribulokinase and ribulose diphosphate metab. in)

IT 2002-28-0

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(metab. of, in hydrogen **bacteria**)

IT 9030-60-8

RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)  
(of hydrogen **bacteria**)

L19 ANSWER 22 OF 22 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1974:81460 CAPLUS

DOCUMENT NUMBER: 80:81460

TITLE: **Microbial** flora and **phosphorus**  
fractions in the soils of Egypt with special reference  
to phosphobacteria

AUTHOR(S): Mahmoud, S. A. Z.; Abdel-Hafez, A. M.; El-Sawy, M.;  
Hanafy, E. A.

CORPORATE SOURCE: Fac. Agric., Ain Shams Univ., Cairo, Egypt  
SOURCE: Agrochemia es Talajtan (1973), 22(3-4), 357-68  
CODEN: AKTLAU; ISSN: 0002-1873

DOCUMENT TYPE: Journal

LANGUAGE: Hungarian

AB Egyptian soils contain considerable amts. of organisms capable of dissolving inorg. phosphate and decomp. RNA, phytin, lecithin, and phenolphthalein phosphate. The microflora content depends on soil texture, cultivation, fertility status, and other environmental conditions. Calcareous and alkali soils contain phenolphthalein phosphate- and lecithin-decomp. **bacteria**. Also the total, inorg., and org. P of the tested soils was high, that of sol. or available P was relatively low as a result of soil alky. Sol. inorg. P is transformed in these soils into Ca3(PO4)2 or even apatite. Thus plants needing P depend on the available P resulting from soil biol. activities.

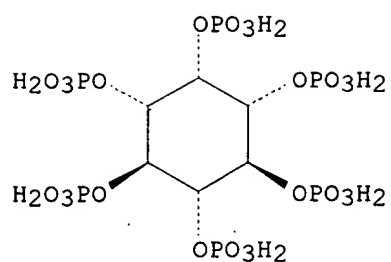
IT 3615-82-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(decompn. of, by phosphate-mobilizing microorganisms in soil)

RN 3615-82-5 CAPLUS

CN myo-Inositol, hexakis(dihydrogen phosphate), calcium magnesium salt (9CI)  
(CA INDEX NAME)

Relative stereochemistry.



●x Ca

●x Mg

- IT Lecithins, biological studies  
 Ribonucleic acids  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (decompn. of, by phosphate-mobilizing microorganisms in soil)
- IT Microorganism, soil  
 (phosphate-mobilizing, in calcareous and alkali soils of Egypt)
- IT 2090-82-6 **3615-82-5**  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (decompn. of, by phosphate-mobilizing microorganisms in soil)
- IT 7723-14-0, biological studies  
 RL: OCCU (Occurrence)  
 (in soils, mobilization of available, by microorganisms)

=>



=> d his

(FILE 'HOME' ENTERED AT 15:38:34 ON 13 MAY 2003)

FILE 'CAPLUS, MEDLINE' ENTERED AT 15:39:25 ON 13 MAY 2003

L1 153627 S ANTIMICROB? OR ANTIBACTER?  
L2 1795 S L1 AND PHOSPHOR?  
L3 54 S L1 AND PHOSPHOROUS  
L4 13 S L3 AND PHOSPHOR?/TI

FILE 'STNGUIDE' ENTERED AT 15:43:36 ON 13 MAY 2003

FILE 'REGISTRY' ENTERED AT 15:49:01 ON 13 MAY 2003

L5 STRUCTURE UPLOADED  
L6 STRUCTURE UPLOADED  
L7 50 S L6  
L8 3173 S L6 FULL

FILE 'CAPLUS' ENTERED AT 15:50:14 ON 13 MAY 2003

L9 67 S L8 AND ( ANTIMICROB? OR ANTIBACTER?)  
L10 STRUCTURE UPLOADED

FILE 'REGISTRY' ENTERED AT 16:10:16 ON 13 MAY 2003

L11 0 S L10  
L12 1 S L10 FULL

FILE 'CAPLUS' ENTERED AT 16:10:51 ON 13 MAY 2003

L13 1 S L12

FILE 'BEILSTEIN' ENTERED AT 16:12:16 ON 13 MAY 2003

L14 0 S L10 FULL  
L15 1314 S L6 FULL

FILE 'CAPLUS' ENTERED AT 16:20:33 ON 13 MAY 2003

L16 716 S L8 AND (MICROBI? OR BACTER?)  
L17 694 S L16 NOT L9  
L18 62 S L17 AND PHOSPHOR?/TI  
L19 22 S L18 AND (BACTER?/TI OR MICROB?/TI)

=> s sanitiz? and phosphor?

1690 SANITIZ?  
593312 PHOSPHOR?  
L20 74 SANITIZ? AND PHOSPHOR?

=> d phosphor?/ti and l20

'PHOSPHOR?' MUST END IN '/Q', '/A', '/L', '/S' OR '/B'

The saved name for a query (or structure or screen set) must end with '/Q'. The saved name for an answer set must end with '/A'. The saved name for an L# list must end with '/L'. SDI request names must end with '/S'. To see a list of all saved query, answer set,, and L# list names for this loginid, enter "DISPLAY SAVED" at an arrow prompt (=>). Enter "DISPLAY SAVED/S" to see a list of SDI request names. Enter "DISPLAY SAVED/B" to see a list of BATCH search requests.

=> s phosphor?/ti and l20

190496 PHOSPHOR?/TI  
L21 2 PHOSPHOR?/TI AND L20

=> d ibib abs 1-2 it

L21 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1983:3640 CAPLUS

DOCUMENT NUMBER: 98:3640

TITLE: Indirect food additives; adjuvants, production aids, and **sanitizers**; lubricants with incidental food contact; triphenyl **phosphorothionate**

CORPORATE SOURCE: United States Food and Drug Administration, Rockville, MD, 20857, USA

SOURCE: Federal Register (1982), 47(219), 51107-8, 12 Nov 1982  
CODEN: FEREAC; ISSN: 0097-6326

DOCUMENT TYPE: Journal

LANGUAGE: English

AB triphenyl **phosphorothionate** [597-82-0] May be used at .1 to req. 0.5% by wt. in food industry lubricants as an antiwear-extreme pressure additive, under the Federal Food, Drug, and Cosmetic Act.

IT Standards, legal and permissive  
(for tri-Ph **phosphorothionate**, of lubricating oils for food industry)

IT Lubricating oil additives  
(extreme-pressure, tri-Ph **phosphorothionate**, for food industry, stds. for)

IT Food  
(industry, tri-Ph **phosphorothionate** of lubricating oils for, stds. for)

IT 597-82-0  
RL: BIOL (Biological study)  
(lubricating oil additive, for food industry, stds. for)

L21 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 1959:125473 CAPLUS

DOCUMENT NUMBER: 53:125473

ORIGINAL REFERENCE NO.: 53:22570h-i, 22571a-b

TITLE: Virucidal activity of a new **phosphoric acid-wetting agent (PAWA) sanitizer** against bacteriophage of *Streptococcus cremoris*

AUTHOR(S): Hays, Helen; Elliker, P. R.

CORPORATE SOURCE: Oregon Agr. Expt. Sta., Corvallis

SOURCE: J. Milk and Food Technol. (1959), 22, 109-11

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

AB PAWA is a new wetting agent consisting chiefly of orthophosphoric acid plus nonionic and anionic surface-active agents. A comparison was made under lab. conditions of the relative effectiveness of the new PAWA **sanitizer** and representative hypochlorites, quaternary ammonium compds. (QAC), and iodophor compds. in the destruction of bacteriophage of lactic streptococci. The effect of diln. and buffered hard water on the activity of the new **sanitizing agent** also was studied. Both NaOCl and Ca(OCl)<sub>2</sub> in a concn. of 25 p.p.m. completely inactivated the phage of *S. cremoris* 144F during a 15-sec. exposure period. The iodophor compds. showed a slower rate of activity when used in a concn. of 25 p.p.m. In distd. H<sub>2</sub>O a 60-sec. exposure period was required for complete destruction of the phage, and in buffered hard H<sub>2</sub>O the efficiency was greatly decreased. A concn. of 50 p.p.m. QAC was effective in a 15-sec. exposure period. The PAWA **sanitizer** was effective in concns. as low as 12.5 p.p.m, during a 15-sec. exposure period in distd. H<sub>2</sub>O, but in buffered hard H<sub>2</sub>O a concn. of 50 p.p.m. was required to inactivate the phage in 15 sec. The results suggest that this **sanitizer** when used in recommended concn. of 200 p.p.m. should provide an effective agent for destruction of bacteriophage on dairy equipment.

IT Wetting agents  
(-**phosphoric acid sanitizer** effect on bacteriophage of *Streptococcus cremoris* in milk)

IT Dairy industry  
 (bacteriophage control in, cleaning compns. in)  
 IT Streptococcus cremoris  
 (bacteriophage of, in milk, cleaning compn. effect on)  
 IT Cleaning compositions  
 (effect on bacteriophage of Streptococcus cremoris in milk)  
 IT Bacteriophages  
 (Streptococcus cremoris, in milk, cleaning compn. effect on)  
 IT **Phosphoric** acid, vitamin B2 ester  
 (-wetting agent **sanitizer**, Streptococcus cremoris  
 bacteriophage and)  
 IT Ammonium, 5-dodecynyltrimethyl-  
 (effect on bacteriophage of Streptococcus cremoris)  
 IT 7681-52-9, Sodium hypochlorite 7778-54-3, Calcium hypochlorite  
 (effect on bacteriophage of Streptococcus cremoris)  
 IT 7732-18-5, Water  
 (hardness of, virucidal activity of H3PO4-wetting agent  
**sanitizer** and)

=> s sanit?/ti and l20

5970 SANIT?/TI

L22 51 SANIT?/TI AND L20

=> d ti 1-10

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TI Pesticides; Tolerance exemptions for active and inert ingredients for use  
 in antimicrobial formulations (food-contact surface **sanitizing**  
 solutions)

L22 ANSWER 2 OF 51 CAPLUS COPYRIGHT 2003 ACS

TI Acid **sanitizing** and cleaning compositions containing protonated  
 carboxylic acids for hard surfaces and containers

L22 ANSWER 3 OF 51 CAPLUS COPYRIGHT 2003 ACS

TI A new concept in cleaning and **sanitation** of fermentation and  
 storage vessels

L22 ANSWER 4 OF 51 CAPLUS COPYRIGHT 2003 ACS

TI Acidic aqueous chlorite teat dip with improved emollient providing shelf  
 life, **sanitizing** capacity and tissue protection

L22 ANSWER 5 OF 51 CAPLUS COPYRIGHT 2003 ACS

TI Concentrated **sanitizing** compositions for cleaning food and food  
 contact surfaces

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TI Cleansing and **sanitizing** composition for **sanitary**  
 appliances

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TI Indirect food additives: adjuvants, production aids, and  
**sanitizers**

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TI Effectiveness of **sanitizing** agents in inactivating Escherichia  
 coli in Golden Delicious apples

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TI Microbicidal and **sanitizing** soap compositions

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TI **Sanitizing** composition

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